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THE
AMERICAN
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The American University
Washington, D.C.

July 1976



Photos: page 6, President Woodrow Wilson, Opening Day, May 27, 1914, page 10, Orientation, September, 1973, page 24, Ground Breaking Ceremony, Hurst Hall, March 9, 1896, page 30, The American University vs. St. Joseph's, January, 1974, page 36 (top), Hurst Hall, College of History, March 9, 1896, page 36 (bottom), Bishop Hurst at Ground Breaking, March 9, 1896, page 60, Commencement Exercises, College of Arts and Sciences, May, 1973, page 262, School of Nursing student at Sibley Memorial Hospital, page 266, President John F. Kennedy, Commencement Exercises, 1963, page 342, Blackboard, Spring Semester, page 366, Dean Herbert E. Striner and student, School of Business Administration, June, 1975, page 367, McKinley Building, College of Continuing Education, page 368, Commencement Exercises, Washington College of Law, May, 1975

Photos on pages 6, 24, 36, and 266 courtesy Miss Marion Logue, University Archivist, pages 10, 30, 60, Ms. Ann Stevens, Editor, *The AU Report*, pages 366 and 368, Ms. Liz Zerbe

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**The American University Bulletin:
Catalog Issue
1975-1977**

**Reprinted July 1, 1976
with Revised Financial Information**

It is the policy of The American University to provide equal opportunity for all qualified persons in the educational programs and activities which the University operates. In full and affirmative compliance with the laws of the United States and of the District of Columbia and all applicable regulations thereto, the University does not discriminate on the basis of race, creed, color, national origin, age or sex in the educational programs or activities which it operates. The University is committed to promote, in full measure, the realization for equal opportunity for all qualified persons regardless of race, creed, color, national origin, age or sex in its educational programs and activities. The policy of equal opportunity applies to every aspect of the University's operations for the promotion of education and that indeed extends to admissions thereto and to employment therein.

REGULATIONS AND COSTS SUBJECT TO CHANGE

The educational process necessitates change. This bulletin must be considered as informational and not binding on the University.

Each step of the educational process, from admission through graduation, requires appropriate approval by University officials. The University must, therefore, reserve the right to change admission requirements or to refuse to grant credit or a degree if a student does not satisfy the University in its sole judgment that he has satisfactorily met its requirements.

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General Academic Calendar, 1975-77*

1975-76 Academic Year

<i>August 25</i>	Law School: Fall Semester Classes Begin
<i>September 1</i>	Law School: Labor Day Holiday**
<i>September 8</i>	Fall Semester Classes Begin
<i>November 27-30</i>	Thanksgiving Day Holiday (Including Law School)
<i>December 1</i>	Law School: Fall Semester Classes End
<i>December 20</i>	Fall Semester Classes End
<i>January 12</i>	Law School: Spring Semester Classes Begin
<i>January 19</i>	Spring Semester Classes Begin
<i>February 16</i>	Washington's Birthday Holiday (Including Law School)**
<i>March 14-21</i>	Spring Recess (Including Law School)
<i>April 24</i>	Law School: Spring Semester Classes End
<i>May 8</i>	Spring Semester Classes End
<i>May 16</i>	Sixty-Second Annual University Commencement
<i>May 17-July 2</i>	First Seven-Week Summer Session
<i>May 18-June 18</i>	First Five-Week Summer Session
<i>June 2-July 27</i>	Law School: Summer Session
<i>June 21-July 23</i>	Second Five-Week Summer Session
<i>July 5-August 20</i>	Second Seven-Week Summer Session
<i>July 26-August 27</i>	Third Five-Week Summer Session

1976-77 Academic Year

<i>August 30</i>	Law School: Fall Semester Classes Begin
<i>September 6</i>	Law School: Labor Day Holiday**
<i>September 7</i>	Fall Semester Classes Begin
<i>November 25-28</i>	Thanksgiving Day Holiday (Including Law School)
<i>December 6</i>	Law School: Fall Semester Classes End
<i>December 23</i>	Fall Semester Classes End
<i>January 10</i>	Law School: Spring Semester Classes Begin
<i>January 17</i>	Spring Semester Classes Begin
<i>February 21</i>	Washington's Birthday Holiday (Including Law School)**
<i>March 13-20</i>	Spring Recess (Including Law School)
<i>April 23</i>	Law School: Spring Semester Classes End
<i>May 7</i>	Spring Semester Classes End
<i>May 15</i>	Sixty-Third Annual University Commencement

* Detailed academic calendars are published in each edition of the *Schedule of Classes* for each academic term.

** The University, in keeping with Federal government policy, will observe Public Law 90-363 "Monday Holiday Law" which became effective January 1, 1971.

Correspondence Directory

Admission

Office of Admissions, Financial Aid and Veterans Affairs,
Programs and Services, Asbury Building

Transfer Student Services

Office of Admissions, Financial Aid and Veterans Affairs,
Programs and Services, Asbury Building

Housing

Director of Residential Life, McDowell Hall

Scholarships and Loans

Office of Admissions, Financial Aid and Veterans Affairs,
Programs and Services, Asbury Building

Part-Time Employment

Director, Career Development Center, Mary Graydon Center

Counseling

Director, Counseling Center, Mary Graydon Center

Program Information

Office of the Dean, the respective college or school

Records and Transcripts

Registrar, Asbury Building

International Student Advisor

International Student Office, Mary Graydon Center

Financial Transactions

Office of Student Accounts, Leonard Center

To complete above

addresses, write:

The American University
Massachusetts and Nebraska Avenues, N.W.
Washington, D.C. 20016

For additional information, phone, write or visit:

Office of Admissions, Financial Aid and Veterans Affairs,
Programs and Services, Asbury Building

The American University

Massachusetts and Nebraska Avenues, N.W.

Washington, D.C. 20016

Telephone: (202) 686-2000



The University

Education at The American University is based on a heritage of flexibility—a readiness to depart from traditional patterns when change is necessary. The University seeks new roads to learning which offer maximum freedom of choice to the student while maintaining high academic standards. A private institution, The American University enjoys the freedom to experiment as it recognizes an obligation to lead in the search for education firmly based on the past and relevant to the present. The traditional academic disciplines are maintained but at the same time learning can be enriched also through interdisciplinary courses and degree programs.

The American University intends to instill in its students an understanding of man and his environment, a desire to contribute to society, and a determination to improve the quality of life.

History

The American University was founded as a graduate school of history and public affairs by Methodist bishop John Fletcher Hurst. It was chartered by Congress in 1893, was officially dedicated in 1914, and awarded its first degrees in 1916. Over the years The American University's enrollment and number of degrees have increased steadily. The first class, in 1914, numbered only 28; in the Fall of 1974 almost 14,000 students were enrolled from fifty states and eighty-six foreign countries. In 1916, The American University conferred 2 degrees at its first commencement; at its 1975 commencement the University awarded over 2,900 degrees.

There has been a corresponding growth in the number of colleges and schools. In 1925 an undergraduate program was begun with the establishment of the College of Liberal Arts, now the College of Arts and Sciences. Subsequent years saw the establishment, in chronological order, of the Washington College of Law (1949), the School of Business Administration (1955), the School of Government and Public Administration (1957), the School of International Service (1958), the College of Continuing Education (1964), the Lucy Webb Hayes School of Nursing (1965), and the College of Public Affairs (1972), which incorporated the School of Government and Public Administration and the School of International Service. In 1975 the School of Education was formed within the College of Arts and Sciences.

Location

The University's sixty-six acre campus is located in a wooded residential neighborhood of northwestern Washington, D.C. From this location, which is on the highest land in the city and at the juncture of Massachusetts and Nebraska Avenues at Ward Circle, students have convenient access to the opportunities afforded by the nation's capital, a city that President John F. Kennedy characterized as "devoted to the making of history and to the conduct of the public's business." This environment enables the University's programs to be supplemented by the numerous governmental, cultural, scientific, and historical institutions and foundations located in the area.

Physical Facilities

There are fourteen classroom buildings, five residence halls, and an interdenominational religious center, in addition to various administrative facilities on the campus.

UNIVERSITY LIBRARY The University Library contains almost 347,000 volumes and 111,312 microfiche and cards. The Library receives over 3,000 periodicals each year. Included are excellent pre- and post-World War I materials, League of Nations and United Nations documents, the Peace Society Library, the Artemus Martin Collection of Rare Materials on Mathematics, the Friedrich Collection on Economics, the Franklin Collection on pre- and post-World War II Germany, and the Spinks Collection of rare Japanese materials. The Library also has on microfilm the complete card catalog of the Tokyo Bunko Oriental Library of the National Diet Library and the University of Tokyo.

A listing of the Library's serial holdings is available at the Reference Desk.

Materials not available in the University Library may be obtained for faculty members and graduate students through the inter-library loan service.

The American University is a member of the Consortium of Universities of the Washington Metropolitan Area (embracing five universities and four colleges). An undergraduate or graduate student enrolled in a Consortium institution course may apply at that institution for a library card, valid for the time the student is enrolled in the course.

A ten-million-dollar campaign for a new Library and Learning Resource Center is underway. The planned facility is designed to preserve the campus environment of green and open space, and it is targeted to specific educational needs, taking into account varied and extensive resources available to scholars and students in the Washington area. It is designed to accommodate 900,000 books and periodicals plus 60,000 microfilm reels, audio tapes, films, and video tapes. It will also include individual carrels, lounge seating, and other modern facilities.

TECHNICAL FACILITIES The language laboratory in the Asbury Building can serve more than 100 students simultaneously. Dial-Access facilities are available in the student lounge in the Department of Language and Foreign Studies.

Almost all buildings on campus have closed-circuit television capability for conferences, teacher training, and production and broadcasting classes.

WAMU-FM is the public radio service of The American University. As a 50,000 watts, twenty-four hour FM station with listeners throughout the Washington-Baltimore metropolitan areas, WAMU-FM offers a diverse, commercial-free radio service 365 days a year. With an emphasis on informational, educational "talk" programming which involves listeners through telephone participation, the broadcast schedule also features four basic types of music—classical, jazz, bluegrass, and rock—along with radio instructed courses for credit through the University's College of Continuing Education. The station also provides opportunities for University students to participate in work-study and internship programs. WAMU-FM is financed through funds from The American University, public and private grants, and contributions by the listening public. The station is a member of National Public Radio, the only non-commercial radio network in the United States. NPR has over 150 members of which about seventy-five per cent are professionally staffed stations owned and operated by colleges and universities.

The Computation Center serves the computer research and instructional needs of both faculty and students. It is supported by an I.B.M. 370/145 computer system to which the Computation Center has access via a remote job-entry input/output unit. In addition, several time-sharing terminals are available. Languages used at the Computation Center include BASIC, COBOL, FORTRAN, and PL/1. Each semester, members of the Computation Center staff offer informal non-credit courses in selected computer languages as well as seminars in those software package programs available at the Center. New acquisitions, as well as announcements of courses, are promulgated to faculty, staff, and students through a monthly newsletter.

RECREATIONAL FACILITIES Most of the University's recreational facilities are located in Leonard Center where students enjoy billiards, bowling, sauna baths, swimming, and the use of a gymnasium. Outdoor recreational facilities include eight tennis courts and a standard regulation track.

Faculty 1974-75

Full-time 375

Part-time 500

Of the full-time teaching faculty, some 70 per cent hold earned doctorates. Most of the 500 part-time faculty are specialists within the professional community in the Washington metropolitan area and teach at the University in fields related to their professions.

Accreditation

The American University is accredited by the Middle States Association of Colleges and Secondary Schools, the University Senate of The Methodist Church, the National University Extension Association, and the Adult Education Association of the USA. It is a member of the Association of American Colleges, the Association of Urban Universities, the Association of University Evening Colleges, the National Intercollegiate Athletic Association, The East-Coast Conference, the Eastern Intercollegiate Athletic Association, the Association for Intercollegiate Athletics for Women, and is approved by the American Association of University Women. A charter member of the Council of Graduate Schools in the United States, the University is also a member of the Midwest Conference on Graduate Study and Research.

The School of Business Administration is a member of the Middle Atlantic Association of Colleges of Business Administration and a charter member of the American Assembly of the American Association of Collegiate Schools of Business.

The Washington College of Law is a member of the Association of American Law Schools and is approved by the American Bar Association.

The School of Education in the College of Arts and Sciences is a member of the American Association of Colleges for Teacher Education and is accredited by the National Council for Accreditation of Teacher Education in both elementary and secondary areas.

The Department of Music, College of Arts and Sciences, is a member of the National Association of Schools of Music.

The Department of Chemistry, College of Arts and Sciences, is accredited by the American Chemical Society.

The Department of Psychology, College of Arts and Sciences, is accredited by the American Psychological Association.

The School of Nursing is accredited by the National League of Nursing and is approved by the Nurses Examining Board of the District of Columbia.

Enrollment

The student body of the University is composed of students from all 50 states and approximately 86 foreign countries. In the 1974-75 academic year, full-time undergraduates numbered 5,236 (including 206 Washington Semester students), and part-time undergraduates numbered 999. A total of 3,385 (including the Washington College of Law) enrolled for full-time and part-time graduate study, and some 3,700 students attended on a non-degree basis, either on the campus or at various metropolitan Washington off-campus locations.

Degrees Conferred, 1974

<i>College or School</i>	<i>Associate</i>	<i>Bachelor's</i>	<i>Master's</i>	<i>Ph.D.</i>	<i>Ed.D.</i>	<i>J.D.</i>	<i>Total</i>
Arts and Sciences, College of	6	851	343	45	12		1,257
Business Administration, School of		184	134	18			336
Continuing Education, College of	2	28	46				76
Law, Washington College of						192	192
Nursing, Lucy Webb Hayes School of		20					20
Public Affairs, College of Admin. of Justice, Center for the	129	161	23				313
Gov. and Public Admin., School of		220	82	9			311
International Service Technology and Admin., Center for		75	69	18			162
		6	153				159
University Total	137	1,545	850	90	12	192	2,826

Alumni Association

The Alumni, in excess of 25,000, represent The American University in all fifty United States and in many foreign countries.

Through the Annual Alumni Fund, alumni give support to the University and offer scholarships for undergraduate and graduate students. The area chapters in major cities and groups of alumni with special interests in common provide a channel for student recruiting, job placement assistance, continuing education with visiting faculty, and fellowship. Through elected officers who comprise the National Board of Governors and committees, the Association makes available to the University and the students the expertise, experience, and influence of alumni established in their communities and professions.



Admission Information

Campus Visits and Interviews

Prospective students are invited to visit the University but are not required to do so. The student is asked to make an appointment with the Office of Admissions, Financial Aid and Veterans Affairs, Programs and Services three weeks in advance if by mail, two weeks if by phone.

Prospective freshmen participate in small group conferences conducted by an Admission Officer, who will review admission policy and procedure and answer questions about the University. Applicants should be prepared to submit a brief resumé of their academic qualifications, i.e., academic average, College Board scores, and rank in class.

Campus tours are available for visitors after the conference. However, during holiday periods when the University is not in session, it may not be possible to gain access to classroom buildings and dormitories.

Students attending another college or university who are interested in transferring to The American University may make appointments in advance for individual conferences with an Admission Officer. A transfer student either should have an official transcript of previous work forwarded to the Office of Admissions, Financial Aid and Veterans Affairs, Programs and Services prior to his visit, or bring a personal copy for use in the conference only.

Applicants for graduate study may also make appointments with an Admission Officer. Transcripts of previous work are helpful in such interviews.

The Office of Admissions, Financial Aid and Veterans Affairs, Programs and Services is not always able to arrange classroom visits for prospective students. However, a visitor may attend classes with a friend enrolled at the University if permission of the professor has been granted in advance. Saturday class offerings are very limited.

The University does not have facilities for the accommodation of overnight visitors unless arrangements are made in advance with a friend. A list of convenient motels and hotels is available on request.

Admission to Undergraduate Study

Application for admission to undergraduate degree programs may be made for any Fall, Spring, or Summer term.

The applicant is required to submit the application form and a non-refundable application fee of twenty dollars. Forms may be obtained by writing or telephoning the Office of Admissions, Financial Aid and Veterans Affairs, Programs and Services.

Applications and all supporting documents must be on file in the Office of Admissions, Financial Aid and Veterans Affairs, Programs and Services by the following dates:

Fall—July 1 (freshmen)
 —August 1 (transfers)
 Spring—December 1
 Summer—April 15

(Exceptions to these dates will be made upon special request if it is possible to receive and process the necessary documents in time for registration.)

The applicant is responsible for requesting that official transcripts and test scores be sent directly from the issuing institutions to The American University Office of Admissions, Financial Aid and Veterans Affairs, Programs and Services.

Transfer applicants must request *each* collegiate institution previously attended to send directly to the Office of Admissions, Financial Aid and Veterans Affairs, Programs and Services an official transcript of all work taken. *All* institutions must be reported regardless of whether or not credit was earned or is desired by the applicant.

Applicants may expect to receive notice of decision on admission approximately four to six weeks from the time application and all supporting documents are received by the Office of Admissions, Financial Aid and Veterans Affairs, Programs and Services.

Freshman Requirements

A graduate of an approved secondary school who has completed sixteen acceptable units, fifteen of which are academic or college preparatory in nature and include four units in English and two units in academic mathematics, will be considered for freshman standing. Applicants to the College of Arts and Sciences should also have completed satisfactorily two years of the same foreign language.

The following College Entrance Examination Board Tests should be taken as early as possible and the Board should be requested to send official score reports directly to the Office of Admissions, Financial Aid and Veterans Affairs, Programs and Services:

- (1) The Scholastic Aptitude Test (required)
- (2) The English Composition Achievement Test (required)
- (3) Applicants who plan to continue the study of a foreign language which was begun in secondary school may wish to submit scores on the appropriate Foreign Language Achievement Test, to be used in placing the student at the proper level of work. The test should be taken as early as January if possible, but no later than May for Fall admission.
- (4) It is recommended that the Mathematics Achievement Test (either Level I or Level II) be taken by any freshman applicant whose intended major program of study will require the completion of course work in mathematics and/or statistics either as a requirement of the major or as a related requirement.
- (5) Additional Achievement Test scores may be submitted (no later than May for Fall admission) at the discretion of the applicant.

The American College Test scores are also acceptable if the student does not plan to take the College Entrance Examination Board Tests.

EQUIVALENCY DIPLOMA Holders of equivalency diplomas issued by state departments of education are eligible for consideration as freshmen but are subject to an entrance examination at the direction of the Office of Admissions, Financial Aid and Veterans Affairs, Programs and Services.

Veterans or present members of the armed forces who have taken the General Education Development Test, the Comprehensive College Test, or the General Examinations of the College Level Examination Program, should apply to their state department of education for an equivalency diploma. Official certification of the diploma should be sent by the state department of education directly to the Office of Admissions, Financial Aid and Veterans Affairs, Programs and Services.

SCHOOL OF INTERNATIONAL SERVICE FRESHMAN APPLICANTS In addition to standards and procedures pertaining to freshman admission at The American University, candidates for admission to the School of International Service must present evidence of outstanding personal and academic qualifications. Eligibility for freshman consideration normally requires a B average in secondary school. Other factors considered are leadership qualities, character, and personal interest.

EARLY ADMISSION The American University offers an opportunity for early admission to freshman applicants whose ability, academic achievement, and general maturity indicate that they are ready to initiate collegiate work a year earlier than normal. Such applicants must fulfill in general the requirements set out above.

The Office of Admissions, Financial Aid and Veterans Affairs, Programs and Services will send information to secondary school principals, counselors, or individual students who inquire about such admission. Each individual is considered on his own merit. However, major factors important to evaluation are:

- (1) The secondary school record, with special reference to grades achieved and the pattern of courses taken.
- (2) Performance on the College Entrance Examination Board Tests, or the American College Tests.
- (3) The recommendations of the secondary school principal and counselor.
- (4) A letter from the applicant stating the reasons for seeking early admission.
- (5) Possibly an interview with a screening committee.

ADVANCED PLACEMENT By any of the following means, freshman applicants may earn advanced standing credit which may be used toward filling degree requirements:

- (1) The College Entrance Examination Board's Advanced Placement Program. In some secondary schools enriched courses are offered under this program. On the basis of scores achieved in the special examinations given, the applicant may be granted actual college credit or advanced placement in courses.
- (2) The College Level Examination Program. Credit may be earned for superior performance in the following subject matter examinations: American Government, Analysis and Interpretation of Literature, Biology, Computers and Data Processing, English Composition, English Literature, FORTRAN IV, General Chemistry, General Psychology, Introductory Marketing, Tests and Measurements.

From time to time additional subject matter examinations are added to those listed above. Applicants will be kept informed of additions to the list. For complete details on the CLEP at The American University, write the Office of Admissions, Financial Aid and Veterans Affairs, Programs and Services.

For information about taking CLEP tests write to: The College Level Examination Program, Box 1821, Princeton, New Jersey, 08540.

- (3) Credit earned while attending a regionally accredited college or university either in a summer session or during the regular school year. Applicants must have an official transcript of the work completed sent directly from the other college to the Office of Admissions, Financial Aid and Veterans Affairs, Programs and Services of The American University.

Credit may be given in a combination of the above programs except that duplicate credit will not be given.

Transfer Student Requirements

To be considered for transfer admission applicants normally should have maintained a minimum C average or the equivalent at a regionally accredited collegiate institution, or an institution which is a Recognized Candidate for Accreditation, and should be in good academic and social standing at the school previously attended.

ADVANCED STANDING Transfer students may normally expect to receive credit for courses taken at regionally accredited collegiate institutions or institutions which are Recognized Candidates for Accreditation, if the courses were completed with grades of A, B, C, or the equivalent of P on a pass-fail system where P is specifically designated as indicating a quality of work no lower than C on a conventional grading scale, and if the courses are appropriate for academic credit.

Courses completed with grades of D will be accepted on transfer from each previous school in which at least a 2.00 average (on a 4.00 scale) has been maintained, subject to the following conditions: A D grade course may not be applied toward a major or major-related course requirement or, in normal circumstances, to the satisfaction of English requirements.

A maximum of thirty semester hours, or the equivalent, may be accepted on transfer for a combination of relevant work completed satisfactorily (a) in Armed Services School courses recommended for baccalaureate credit by the American Council on Education, or (b) for college-level correspondence or extension courses completed through the United States Armed Forces Institute.

An additional thirty semester hours, or the equivalent, may be granted for relevant work completed in college-level non-degree, extension, or correspondence courses offered through a collegiate institution which accepts the credit for its own degree.

A grant of thirty semester hours of advanced standing credit in the area of undergraduate electives may be awarded to students who, at the time of admission to an undergraduate degree program, present evidence that they have been licensed to practice as:

- (1) attorneys
- (2) dental surgeons
- (3) certified public accountants
- (4) medical doctors
- (5) accredited members of other licensed professions, by special permission of the Committee on Undergraduate Admissions, Scholarships and Financial Aid.

Transfer students may be awarded credit for satisfactory scores in Subject Matter Tests of the College Level Examination Program (see material on CLEP given above with advanced placement information under "Freshman Requirements"). In addition, transfer students whose prior records reflect assignment of credit toward a degree for General Examinations of the CLEP will be granted appropriate credit.

A maximum of ninety semester hours of credit or the equivalent in American University course unit credit will be acceptable on transfer from four-year collegiate institutions, or a maximum of seventy-five semester hour credits with an Associate's degree from a two-year or four-year collegiate institution.

To be eligible for a degree from The American University an undergraduate student must complete at The American University a minimum of eight course units (equivalent of thirty semester hours) out of his last sixteen course units toward a degree. A student must complete a minimum of four upper-level courses in his major at The American University. More may be required by the department chairman or dean in accordance with normal requirements for graduation. No more than a maximum of twenty-four transferred course units may be used toward an undergraduate degree.

Courses accepted for transfer will not be included in the grade-point average to be maintained at The American University, but they will count toward the total number of courses required for graduation.

TRANSFER TO THE SCHOOL OF INTERNATIONAL SERVICE Students from other regionally accredited collegiate institutions and those in other majors at The American University, who have completed the freshman year, are eligible to apply for admission to the School of International Service. Normally applicants should have maintained a cumulative B average.

Decisions on transfer applications usually cannot be made on less than twelve semester hours of work or the equivalent. However, the secondary school record and College Board scores (as required for freshmen, q.v.) are required for those with less than twelve semester hours of transferable work, to aid in reaching a decision.

WIDE HORIZONS PROGRAM FOR TRANSFER STUDENTS The American University takes a special interest in transfer students and has established the Richard P. Ettinger Sr. Wide Horizons Program for Transfer Students. The program is designed to encourage and assist students and graduates of two-year colleges and transferees from four-year institutions to enter The American University.

Each transfer student receives extensive personal attention before and after enrollment with these goals in mind: easing transition from the sometimes structured environment of the two-year college and some four-year institutions to the freer system of The American University, which emphasizes analytical thinking and personal responsibility; providing essential information about programs, departments, interdisciplinary-study opportunities, and academic regulations; planning an academic program designed for maximum educational returns; and, finally, helping to solve personal, vocational, and educational problems through personal guidance.

The Wide Horizons Program serves as a general resource center for all matters pertaining to the transfer process, and any student who has a question or problem related to the transfer situation should phone, write, or visit the office for assistance. The office is located in the Asbury Building and is part of the Office of Admissions, Financial Aid and Veterans Affairs, Programs, and Services.

Notice of Admission

Applicants who are admitted and who plan to attend the University are required to pay a non-refundable tuition deposit of \$100 within six weeks from the date of acceptance. However, if the tuition deposit is not paid by the required deadline, the student may later request that his admission be re-activated provided there are still openings in the incoming class of that semester. However,

since application for campus housing cannot be made until the tuition deposit has been paid, it is in the student's interest to submit the deposit as soon as possible if campus residence is desired. The room deposit of an additional \$100 is required when the lease is submitted.

Complete detailed instructions are furnished with the notice of admission.

Admission for Part-Time Undergraduate Students

A student enrolled in less than three full course units is considered a part-time student.

Any student employed for more than twenty hours a week is expected to register as a part-time student and should enroll for no more than two and three-quarter course units or the equivalent per semester.

The applicant considering part-time study in a degree program is cautioned that he may be unable to complete the necessary course work for the degree by attending evening classes only. Before applying, he should consult with the department chairman of his proposed major to ascertain if the required courses will be available to him.

Part-time degree applicants are required to meet the same standards for admission as full-time applicants, and should follow the instructions under either "Freshman Requirements" or "Transfer Student Requirements," whichever is appropriate, with the following exceptions pertaining to College Board Tests:

- (1) If the freshman applicant has taken College Board Tests within the past five years, he is required to contact the College Entrance Examination Board, Box 592, Princeton, New Jersey, 08540; or Box 1025, Berkeley, California, 94701, to request that official scores be sent directly to The American University Office of Admissions, Financial Aid and Veterans Affairs, Programs and Services.
- (2) If the applicant completed secondary school within the past two years and *did not* take College Board Tests, he must arrange to do so. Information on how to apply may be obtained from the College Entrance Examination Board, address given immediately above.
- (3) If the applicant completed secondary school *more than* two years ago and *did not* take College Board Tests, he may be asked to take an alternate examination at the direction of the Office of Admissions, Financial Aid and Veterans Affairs, Programs and Services.
- (4) The American College Tests are accepted in lieu of the College Board Tests.

Re-Admission for Undergraduate Students

An undergraduate student whose studies at the University are interrupted for any reason for a period of one semester (excluding the summer sessions) must submit a formal application for re-admission to the Office of Admissions, Financial Aid and Veterans Affairs, Programs and Services at least two months in advance of the beginning of the semester or summer session in which courses are desired, unless written permission to study at another collegiate institution has been secured in advance or the student has been granted an official leave of absence. (See transfer credit information under "General Academic Information and Regulations" in this publication.) If a student was in good standing at the time that he left the University, and/or if he has maintained a satisfactory grade point average at another school, his re-admission is virtually assured. It is to a student's advantage to apply for re-admission as early as possible so that he may advance register. If re-admission is approved, the student is subject to the academic requirements and regulations in effect at the time of his re-admission. Students applying for undergraduate re-admission must pay a fee of twenty dollars.

Transfer from Non-Degree to Undergraduate Student Status

Students wishing to transfer from non-degree status at The American University to undergraduate status must submit a formal application for admission to an undergraduate program through the Office of Admissions, Financial Aid and Veterans Affairs, Programs and Services. If a student is accepted into an undergraduate degree program, he may transfer a maximum of thirty semester hours (or the course unit equivalent) of credit from the non-degree program to the degree program. If the student is denied admission to an undergraduate program, he may not re-register at The American University for further courses.

Admission to Graduate Study

The minimum University requirements for consideration for admission to graduate study are set out below. Please refer also to the table following these requirements and to the appropriate college,

school, and department sections of this publication for any additional requirements of the various academic units.

- (1) Possession of a bachelor's or master's degree earned at an accredited college or university.
- (2) And, based on a 4.00 system, maintenance of at least a 2.50 cumulative grade point average in the undergraduate program, calculated on the last sixty semester hours credit of course work completed and available at the time of consideration of application for admission. If, in a given semester, a student completes more than the requisite number of courses needed to furnish the total of sixty hours, all the hours in that semester must be evaluated.
- (3) And, based on a 4.00 system, maintenance of a cumulative grade point average of at least 3.00 in all *relevant* graduate work for which a grade has been awarded.
- (4) Or, instead of (1), (2), and (3), an applicant for graduate study may be admitted without reference to his undergraduate average provided he has maintained either a 3.30 cumulative grade point average in a master's degree program completed at an accredited institution, or a 3.50 cumulative grade point average in the last twelve semester hours credit which are a part of a master's or doctoral degree program still in progress at such an institution at the time of the evaluation of his application, or in graduate work taken in non-degree status at The American University and applicable to the degree program for which he is applying.
- (5) In the case of applicants to professional terminal master's degree programs, academic units may, with the approval of the Graduate Studies Committee and the Vice President for Academic Affairs, establish alternative admission criteria if the undergraduate degree is over five years old.

The standard deadlines for application are:

Fall—August 1
Spring—December 1
Summer—April 15

Applicants should also refer to the table below which lists exceptional deadlines and additional requirements of the academic units.

Graduate Admission Requirements

<i>Academic Unit</i>	<i>Degrees Offered</i>	<i>Applications Accepted for</i>	<i>Deadline</i>	<i>Additional Requirements</i>
College of Arts and Sciences				
Anthropology	M.A.; M.A. in Applied Anthro.; Ph.D.	all terms (preferably Fall)	standard	Two letters of reference; an example of applicant's work, e.g., term paper; 3.00 g.p.a.; send GRE scores if available.
Art	M.A. in Art History; M.F.A. in Fine Arts	all terms	standard	Two letters of recommendation if first degree not earned in dept.; Art History: at least eighteen hours of art history; Fine Arts: portfolio must be submitted to dept.
Biology	M.S.	all terms	June 15; Sept. 15; Apr. 15	B.S. in biology; evaluation by Dept. Grad. Studies Comm.; two letters of recommendation; G.R.E. Aptitude and Advanced scores.
Chemistry	M.S.; Ph.D.	all terms	standard	B.S. in chemistry; interview may be helpful.
Communication	M.A. in Public Affairs Jour.; Public Comm. M.A. in Interdis. Film; Media Studies; For. Lang. and Comm. Media	Fall only	April 1 June 1	Must also submit special dept. application form; only full-time students apply Public Affairs. Jour. and Interdis. Film; Film applicants consult also Interdisc. Studies require; two letters of recommendation; interview by dept. invitation.
Computer Science (Mathematics and Statistics)	M.S.	all terms	standard	None.
Economics	M.A.; M.A. in Applied Econ.; Ph.D.	all terms (usually Fall only for Ph.D.)	advised apply before July 1	G.R.E. Aptitude recommended; 3.00 in last two years of undergrad. work and 3.50 in previous grad. work required.
School of Education	M.S.; M.Ed.; Ph.D.; D.Ed. (variety of majors)	all terms except Ph.D. in Counsl. (Fall only; deadline Jan. 15)	Fall: May 1; Spr.: Nov. 1; Sum. Mar. 1	Two letters of recommendation with Univ. application; G.R.E. aptitude or Miller Analogies Test.
History	M.A.; Ph.D.	all terms (preferably Fall)	May 1	Two letters of recommendation from recent professors; G.R.E. Aptitude and Advanced; no direct admission to Ph.D. from B.A. level: in general, 3.20 g.p.a. in undergrad. major and 3.00 overall g.p.a.; a substantial begin. in one foreign lang.
Language and Foreign Studies	M.A. (variety of majors)	all terms	standard	Two letters of recommendation from recent professors unless previous degree earned in dept.

Graduate Admission Requirements (Continued)

<i>Academic Unit</i>	<i>Degrees Offered</i>	<i>Applications Accepted for</i>	<i>Deadline</i>	<i>Additional Requirements</i>
Literature	M.A.; Ph.D. in Literary Studies	all terms (Fall only for Ph.D.)		Two letters of recommendation; G.R.E. aptitude recommended; interview recommended.
Mathematics (Mathematics and Statistics)	M.A.; Ph.D.; Ph.D. in Mathematics Education	all terms	standard	Two letters of recommendation for Ph.D. unless previous degree earned in dept.
Music	M.A. M.A. in Music Education	all terms	standard	Two letters of recommendation; performance specialization: personal audition or tape of recent perform.; composition specialization: submit portfolio of at least five compositions of three types of works. Two letters of recommendation; nine hours or teach. exper. or equivalent in practice teach.; applicants for Kodaly emphasis must be interviewed by dept. and representative of Kodaly Institute.
Performing Arts	M.A.	all terms	standard	Interview/audition preferred, required for provisional status students; two letters of recommendation.
Philosophy (Philosophy and Religion)	M.A.; Ph.D.	all terms	standard	Two letters of recommendation; G.R.E. Aptitude and Advanced required.
Physics	M.A.; M.S.; Ph.D.	all terms	standard	Ph.D., two letters of recommendation unless previous degree earned in dept.
Psychology	M.A., Ph.D. in Clinical, and in Experimental and Social Psych.	Fall only	Feb. 15	Admission to Ph.D. only, though M.A. may be earned in dept.; two letters of recommendation; G.R.E. Aptitude and Advanced recommended.
Religion (Philosophy and Religion)	M.A.; M.A. in History of Religions	all terms	standard	Two letters of recommendation; G.R.E. Aptitude recommended.
Science Education (Education and science depts.)	Ph.D.	all terms	standard	Approval of Schl. of Education, Dept. of Chemistry, and science dept. in which applicant has interest.
Sociology	M.A.; Ph.D.	all terms	Apr. 15 for applicants not apply for financial aid; Jan. 15 for financial aid applicants	Three letters of recommendation, including students previously enrolled in dept.; non-degree students taking courses in dept. should secure at least two of three recommendations from dept. faculty.
Statistics (Mathematics and Statistics)	M.A.; Ph.D.	all terms	standard	Two letters of recommendation for Ph.D. unless previous degree earned in dept.

Graduate Admission Requirements (Continued)

<i>Academic Unit</i>	<i>Degrees Offered</i>	<i>Applications Accepted for</i>	<i>Deadline</i>	<i>Additional Requirements</i>
School of Business Administration				
All Major Fields	M.B.A.; M.S. (see SBA section as to which majors apply to which degrees)	all terms	standard	Two letters of recommendation from professors or employers; G.M.A.T. (formerly A.T.G.S.B.).
College of Continuing Education				
Public Relations	M.S.	all terms	standard	Two letters of recommendation.
Interdisciplinary Studies				
(Interdisciplinary degrees are awarded by all academic units except Nursing and Law.)	M.A.; M.S.	n/a	n/a	Students must first be admitted to another academic unit and may then transfer into an interdisciplinary studies program.
Washington College of Law				
All Programs	J.D.	Fall only	March 15	Bachelor's degree from accredited college or univ.; L.S.A.T.; L.S.D.A.S.
College of Public Affairs				
Administration of Justice	M.S.A.J.	all terms	standard	Two letters of recommendation.
School of Government and Public Administration	M.A.P.S.; M.P.A.; Ph.D.	all terms except Fall only for Ph.D.	standard except Feb. 15 for Ph.D.	Two letters of recommendation; preference given to full-time applicants for Ph.D.; G.R.E. Aptitude required for Ph.D. and for financial aid.
School of International Service	M.A.; Ph.D. (see SIS section as to majors under these degrees)	all terms except Fall only for Ph.D.	standard except March 1 for Ph.D.	Two letters of recommendation; G.R.E. Aptitude required; no direct admission to Ph.D. from B.A. level.
Technology and Administration	M.S.T.M.	all terms	standard	None.

PROVISIONAL STANDING Each college, school, or department within the University may admit to provisional standing a limited number of students who do not meet the minimum standards of either the University or the teaching unit. By the end of one full semester of full-time study or by the first twelve semester hours of part-time study, the student will be evaluated by his college, school, or department. Continuation in the graduate program will be permitted upon favorable appraisal of the student's performance.

The provisional admission status of a graduate student who *does not* give satisfactory evidence of his capabilities will be cancelled.

CLEARANCE A student who has applied for admission to a degree program must clear his admission status before registering for a course. Students who have not received notification of status should inquire directly to the Office of Admissions, Financial Aid and Veterans Affairs, Programs and Services before attempting registration. A provisionally admitted student will be designated as such at the time that he is admitted. (See above.)

Candidates for graduate degrees will be subject to those academic regulations in force at the time of their admission.

RE-ADMISSION FOR GRADUATE STUDENTS Continuation in the degree program may be granted once, for a period of three years, subject to the requirements of the particular degree in effect at the time of re-admission, and may involve taking additional courses or other work or both. When a student is re-admitted under these circumstances, the length of time that he will be allowed to complete his degree requirements and any additional courses, examinations, or other requirements which are deemed necessary by the teaching unit will be specified. Students applying for graduate re-admission must pay a fee of twenty dollars.

Any degree calling for additional prerequisite courses has the Statute of Limitations (see information given in "Graduate Degree Requirements" in this publication) extended in the proportion that the prerequisite requirements bear to the graduate credit requirements.

TRANSFER CREDIT Credit may be considered for transfer at the time of admission, provided the admission is not provisional, or at advancement to candidacy, or other specific times established by the teaching unit. A maximum of six semester hours of graduate credit earned with a B or better may be transferred into a master's degree program. A maximum of thirty semester hours of graduate credit, earned with a B or better, may be transferred into a doctoral program. Transfer of credit is subject to the approval of the appropriate department chairman and dean.

Admission to Non-Degree Study

GENERAL The non-degree program of The American University enables students to pursue courses of study without first being accepted as regular degree candidates in undergraduate and graduate degree programs. Through the non-degree program, the College of Continuing Education is able to meet a wide variety of educational needs of students who for academic, administrative, or other reasons find it to their advantage to enroll in a non-degree status. A non-degree student may apply for admission to courses of his choice for which he has the necessary background and qualifications. Such courses may be taken for professional preparation or personal enrichment on either a credit or audit basis.

Non-degree students are not permitted to enroll for courses offered at other member institutions of the Consortium of Universities of the Metropolitan Washington Area.

A non-degree student is not permitted to enroll in a xx.600 or xx.700 level course unless he secures in advance the written permission of the dean or department chairman of the school or college which has jurisdiction over the course. He must also have the approval of a non-degree advisor.

All non-degree students are held to the same level of academic standards as degree students. Non-degree students who do not maintain a C average (2.00 on a 4.00 scale) will be placed on academic probation. If the student does not bring his average up to a 2.00 after an additional year's work, he will be dismissed from the University.

ELIGIBILITY Enrollment in this category ordinarily is limited to students who (1) have a high school diploma or equivalent (GED); or (2) are in good standing if currently enrolled in another institution; or (3) are recommended by a counselor or principal and have completed eleventh grade if currently high school students; and (4) meet the prescribed prerequisites of the course or courses desired.

Any student who is not in good standing or has ever been dismissed from another college or university must make an appointment with the Advisement Office of the College of Continuing Education prior to registration to determine his registration eligibility.

Students currently enrolled as undergraduate or graduate degree students in any of the member institutions of the Consortium of Universities of the Metropolitan Washington Area may not register in non-degree status at The American University. Such students may use only the consortium registration procedure for enrollment in a course at The American University so long as they maintain their degree status at the other consortium member institution.

International students may register as non-degree students in so far as they abide by the regulations stipulated for non-degree international students under "Admission for International Students" immediately following this section in this publication.

ENROLLMENT A non-degree student ordinarily may not enroll for more than three course units or nine semester hours in any given semester. If he is employed full-time, he may not register for more than two course units or six semester hours. However, a non-degree student may attend The American University as a full-time non-degree student if he meets one or more of the following criteria:

- (1) has a bachelor's degree and is pursuing a course of study leading toward a teaching certificate;
- (2) has a bachelor's degree and is making-up undergraduate prerequisites leading toward admission to an advanced degree program at The American University (student must obtain approval of the dean or department chairman prior to registration);
- (3) is in good standing at another institution (except a member institution in the Consortium of Universities of the Metropolitan Washington Area) and has been granted permission by his dean or other appropriate official to attend The American University for the purpose of transferring credits received to his degree program at his home institution;
- (4) is pursuing a certificate program sponsored by a governmental or private agency which requires the student to attend full-time.

In all cases students must obtain permission from a member of the advisement staff of the College of Continuing Education.

NON-DEGREE STATUS TO DEGREE STATUS Undergraduate-level students who wish to change from non-degree to degree status must submit the formal application and all required supporting documents for degree admission to the Office of Admissions, Financial Aid and Veterans Affairs, Programs and Services. (See earlier sections of this publication for admission details.)

A non-degree student who is admitted to a degree program may use a limited number of course units or semester hours earned as a non-degree student (not more than eight course units if an undergraduate and not more than twelve semester hours if a graduate student) to meet the requirements for a degree at The American University providing that the courses are appropriate to the degree sought. (See earlier sections of this publication for transfer credit details.)

Admission for International Students

The following regulations apply to all students who are not citizens of the United States of America, including students with permanent immigrant status.

ADMISSION PROCEDURES: DEGREE ADMISSION In addition to submitting the University's application for admission and meeting the requirements set forth therein, all international students applying for admission as degree students must arrange to have official transcripts sent directly to the Office of International Admissions by all secondary schools and colleges attended. These documents should be sent well in advance of the semester for which the applicant seeks admission. Personal student papers, photostats, or attested copies are not accepted for evaluation purposes. All international students whose native language is not English and who are applying for admission as undergraduate or graduate degree students must take the Test of English as a Foreign Language (TOEFL). Information regarding the procedure for taking this test may be obtained from: TOEFL, Educational Testing Service, Princeton, New Jersey, 08540, U.S.A.

ADMISSION PROCEDURES: NON-DEGREE ADMISSION All international students who wish to take courses as non-degree students must present to the Office of International Admissions evidence of their successful completion of high school (or its equivalent) and colleges attended. Non-degree international students may use personal copies, photostats, or attested copies for counseling purposes. Non-degree international students who wish to become degree students must have official documents sent to the Office of International Admissions at the time that they apply for degree status.

ENGLISH LANGUAGE REQUIREMENT FOR REGISTRATION: DEGREE AND NON-DEGREE All international students whose native language is not English, whether degree or non-degree students, are required to take an English proficiency test at the University before their first registration. International students who wish to take foreign language courses only (French, German, Russian, Spanish, etc.) may be exempted from the English proficiency test after consultation with the Department of Language and Foreign Studies. Freshman international students will take a placement test in English. All other undergraduate international students and graduate international students, as well as non-degree international students, must take an English waiver examination prior to their first registration at The American University. If an international student's command of English is insufficient to follow the program in which he wishes to enroll, he will be required to take one or more special courses in English as a second language.

VISA REQUIREMENTS The United States Department of Justice, Immigration and Naturalization Service regulations governing non-immigrant "F-1" students require international students in this category to pursue a full course of study while maintaining non-immigrant student status.

In compliance with the provisions under which this institution has been classified as a training agency for international students, The American University requires all non-immigrant "F-1" students to pursue a full course of study each semester during the period of their enrollment.

Under this regulation an undergraduate student will be required to register for at least three (3) full course units and a graduate student will be required to register for at least nine (9) semester hours of course work in a degree or certificate program. Any modification of these requirements resulting in non-degree study or a course load less than the above minimum requirements must be authorized by the International Student Advisor in consultation with the Coordinator of International Admissions and the academic advisor.

Students who fail to observe the above requirements will be ineligible to receive a Certificate of Eligibility (Form I-20) and all other letters of certification in support of their continuation in non-immigrant "F-1" student status.

All students bearing non-immigrant Foreign Student "F-1" visas are required to attend initially the educational institution which issued the Certificate of Eligibility (Form I-20) utilized in obtaining the visa.

Students bearing non-immigrant Foreign Student "F-1" visas are reminded that transfer from one U.S. educational institution to another must be authorized by the United States Immigration and Naturalization Service.

Students in the Exchange Visitor visa category (J-1) requesting transfer to the University's Private Exchange Visitor Program from another program number must obtain approval from the International Student Advisor before admission to the University becomes valid.

Questions concerning United States Immigration and Naturalization Service regulations should be directed to the International Student Advisor.

REGISTRATION PROCEDURES In addition to the normal registration instructions, the following regulations apply to all international students, degree or non-degree:

- (1) All non-immigrant international students and students who do not possess full U.S. citizenship are required to obtain the signature of the International Student Advisor at the time of registration for courses.
- (2) New international students, whether degree or non-degree, may advance register **provided that they have taken an English proficiency test required by the University.**
- (3) International students may take courses in the University's off-campus program, but they may not register off-campus; registration must be completed on campus.

ENGLISH LANGUAGE INSTITUTE International students wishing to enroll in the English Language Institute, either on a full-time or part-time basis, must have completed the equivalent of a U.S. high school education (twelve years of schooling) or be at least seventeen years of age at the time of enrollment. Students who are applying for admission to the English Language Institute *for English only* need not take the Test of English as a Foreign Language (TOEFL). After filing an application, students who are accepted will be sent a formal letter of acceptance and a Certificate of Eligibility (Form I-20) for a student visa if one is required. Admission to workshops or courses in the English Language Institute in no way implies eligibility for admission to any program or course of study in other divisions of The American University. See the English Language Institute section under the College of Continuing Education in this publication.

Information and course dates will be mailed upon request by writing or telephoning:

English Language Institute
College of Continuing Education
The American University
Washington, D.C., 20016, U.S.A.
phone: (202) 686-2197



Tuition, Expenses, and Financial Aid

The costs shown below are for the 1976-77 academic year. Given the continuation of the current academic conditions, as well as the need to continue and accelerate the academic development of the University, it can be reasonably expected that tuition and fee increases will be required each foreseeable year beyond 1976-77. The University will attempt, however, to limit tuition and fee increases to reasonable levels. For the most current information on costs, consult the *Schedule of Classes* for each item.

Tuition and General Fees

Tuition

Charges per semester are as follows:

Undergraduate Students	\$ 383.00	each course unit
(\$95.75 each $\frac{1}{4}$ course unit; \$191.50 each $\frac{1}{2}$ course unit; \$287.25 each $\frac{3}{4}$ course unit)		
Graduate Students	\$ 107.50	each semester hour
	or \$ 322.50	each course unit
Non-Degree Students	\$ 102.00	each semester hour
	or \$ 306.00	each course unit
Off-Campus Programs	\$ 230.00	each course unit
	or \$ 76.66	each semester hour

Auditors pay the same charges as students enrolled for credit and are subject to all applicable special fees listed below.

Institutes

Charges for institutes and other special courses may be found listed under their respective academic units in the *Schedule of Classes* published for each academic term.

Residence Hall and Board Charges

Room Charge: Double Occupancy	\$ 477	each semester
Room Charge: Single Occupancy	\$ 586	each semester
Residence Hall Association Fee	\$ 2	each semester
(Optional: will be waived only upon submission of waiver form to the Office of Student Accounts before end of first week of classes. Non-refundable if fee paid.)		
Board Charges: five day contract	\$ 294	each semester

Special Fees

These fees are non-refundable. The charges listed below are not included in tuition and general fees.

Special course and laboratory fees. (See these courses as listed under their respective academic units in the *Schedule of Classes* published for each academic term.)

Admission Application Fee	\$ 20	each
Re-Admission Fee	\$ 20	each
Deferred Payment Plan Fee	\$ 7	each
Student Confederation Fee	\$ 27	each semester
(Mandatory for full-time undergraduate students.)		
Late Registration Fee	\$ 15	each
(Effective the first day of the term.)		
Late Payment of Financial Obligations Fee	\$ 10	each
Reinstatement Fee	\$ 25	each
Returned Check Fee	\$ 5	each
(For personal checks not honored by the bank.)		
Motor Vehicle Registration Fee	\$ 17.50	each semester
Health Fee	\$ 20	each semester
(Not charged separately to full-time undergraduate students; required of all others who wish to use infirmary facilities.)		
Law School General Fee	\$ 20	each semester
Admission Testing Fee	\$ 5	each test
Official Transcripts Fee	\$ 5	each transcript
Student Picture I.D. Card Replacement Fee	\$ 5	each

Graduate Student Fees

The following charges are applicable to graduate students only.

Graduate Student Council Fee	\$ 2	each semester
(Mandatory for all graduate students, full-time and part-time.)		
Maintaining Matriculation Fee	\$ 55	each academic year
(See description in "Graduate Degree Requirements" section under "General Academic Information and Regulations" in this publication.)		
Comprehensive Examinations (with each application):		
Master's and Doctoral	\$ 20	each examination
Examination Fee if <i>In Absentia</i>		
Master's	\$ 100	each
Doctoral	\$ 200	each
Microfilming of Dissertation, Thesis, or Case Study		
Master's Thesis or Case Study	\$ 25	each
Doctoral Dissertation	\$ 35	each

Graduation Fees

Graduation Fee	\$ 15	each
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Rental charges for academic attire used during the Spring commencement ceremonies are announced in March.

Advance Registration

Students participating in advance registration must pay the balance due on or before the due date as indicated on the bill sent from the Office of Student Accounts. Accounts not paid by the due date will be subject to a late payment fee of ten dollars and may also be automatically placed on the University deferred payment plan, subject to the seven dollar deferred payment plan fee and subsequent late fee charges, if applicable.

Deferred Payment Plan

Registered students (those who advance register and those who participate in general registration) whose total bill, after deducting all forms of tuition assistance, exceeds \$350 may elect the deferred payment plan. Under this plan, the student pays one-half of the amount owed by the initial due date, and the remaining balance approximately seven weeks later by the date shown in the academic calendar in the *Schedule of Classes* published for that term. Students who fail to make payments when due will be subject to the ten dollar late payment fee.

The charge for the University deferred payment plan is seven dollars each semester (not refundable). Students electing this plan are responsible for making subsequent payments in full at the Office of Student Accounts on or before the due date. Late payment will be assessed an additional fee of ten dollars. Failure to make payment when due may result in denial of future registration privileges as well as a hold being placed on academic records. Such "registration stops" and "holds on academic records" will be released *only* upon payment in full of the outstanding balance in addition to a twenty-five dollar reinstatement fee levied by the Office of Student Accounts for financial delinquencies. Failure to make payments when due may also result in denial of future election of the deferred payment plan and may result in severance of the student's relationship with the University.

Tuition Assistance Contracts

Students enrolled under tuition assistance contracts must furnish: (1) term or semester of student's attendance; (2) amount of the payment to be made by other than the student (specify items); (3) address for billing purposes; and (4) signature of authorized official. Financial charges for books and supplies under tuition assistance contracts must reach the Office of Student Accounts by the end of the sixth week of the semester.

Tuition Cancellation

The appropriate forms, available in the offices of the deans and in the Office of the Registrar, must be completed to officially withdraw or reduce the course load. The amount of tuition to be cancelled will be calculated as of the date the forms are received and in accordance with the tuition cancellation schedule in the *Schedule of Classes*.

Complete withdrawal from the University during the first week of classes will result in full cancellation of tuition less twenty-five dollars, providing that the withdrawal form is received in the Office of the Registrar and dated on or prior to the acceptance date in the *Schedule of Classes*.

A full cancellation of tuition will also pertain to any portion of the student's course load dropped within the first week of the semester.

Requests for cancellation of room charges must be processed through the Office of Residential Life.

Requests for cancellation of meal tickets must be processed through the food service office.

Tuition Refund

Students who reduce their course load or who withdraw completely during the first four weeks of the semester will be entitled to a pro-rated refund for that portion of the course load reduction (see tuition cancellation schedule in the *Schedule of Classes*). Requests for refunds are to be made to the Office of Student Accounts.

Financial Aid

Both undergraduate and graduate student applications for financial aid should be requested from and submitted to the Office of Admissions, Financial Aid and Veterans Affairs, Programs and Services located in the Asbury Building.

Undergraduate Students

The American University has a varied program of financial aid for undergraduate students including transfer students. Scholarships, low interest long term loans, part-time employment, or any combination of these resources may be applied for. The University participates in all the federal aid programs for which it is eligible including National Direct Student Loans (NDSL), Nursing Loans and Scholarships, Cuban loans, Law Enforcement Education Program loans and grants (LEEP) (contact the Center for the Administration of Justice in the College of Public Affairs), Supplemental Educational Opportunity Grants (SEOG), Basic Educational Opportunity Grants (BEOG), Guaranteed Student Loans (state loans), and the College Work/Study Program.

Entering freshmen and transfer students are eligible to apply for scholarships, the award of which is based on financial need and academic achievement. Federally financed programs are awarded on the basis of need, and students must plan to be enrolled at least half-time to be considered.

In addition to the University Application for Financial Aid, a Parents' Confidential Statement must be filed by all applicants who are twenty-five and under and supported by their parents. If the applicant is under twenty-five and independent, married or single, he must file a Student Financial Statement along with a notarized statement from his parents indicating that no support has been given, and that he was not claimed as a tax deduction within the previous year and will not be claimed as a tax exemption or given any aid during the year for which the aid is required. If the applicant is over twenty-five and independent, and not claimed by parents for a tax deduction for the previous college year, he must file a Student Financial Statement.

Applications and supporting credentials for all types of financial aid must be filed by November 1 for the Spring semester only, April 1 for the Fall semester only, and April 1 for the Fall-Spring academic year. Scholarships are awarded for the academic year but not normally for the Summer sessions.

A separate application is required for each academic term as set out above.

Graduate Students

The Office of Admissions, Financial Aid and Veterans Affairs, Programs and Services maintains a program of fellowships, traineeships, and graduate assistantships to support graduate students in programs of full-time study. Awards are made on the basis of academic merit and financial need. A program of Special Opportunity Fellowships and tuition grants is also available for students from tri-ethnic backgrounds.

Applications must be submitted by January 15 for awards to commence the following academic year. Applications for National Direct Student Loans (NDSL) and for college work-study must be submitted by April 1.

Employment

Many students also earn a portion of their college expenses through part-time employment on the campus or in the Washington community. Inquiries concerning employment other than the college work-study program should be addressed to the Office of Career Development in Mary Graydon Center. First priority for jobs for students seeking campus employment will be given to those demonstrating a financial need.

Cooperative Education Program

The Cooperative Education Program is designed to integrate experience with academic study. Students enrolled in this program may usually earn academic credit toward their degrees for employment in full-time work assignments related to their educational and career interests and supervised by University faculty. Federal Work-Study Program funds may be used to supplement salaries of those students eligible for financial aid on the basis of the Parents' Confidential Statement or the Student's Financial Statement. For eligibility and other information see the separate "Cooperative Education Program" section in this publication.

Veterans Benefits

The American University is approved by the Veterans Administration for enrollment of veterans and dependents of deceased or disabled veterans eligible for educational benefits under the various public laws relating to veterans which have been passed by the Congress of the United States.

New Students

New students entering The American University must present both copies of Certificates of Eligibility at the time of advance or general registration, or file Veterans Application for Veterans Administration Educational Benefits (22-1990) with a copy of DD 214 through the Veterans Coordinator in the Office of Admissions, Financial Aid and Veterans Affairs, Programs and Services. Enrollment Certification is then sent to the Veterans Administration by the Veterans Coordinator to institute benefits for the enrollment period. A Certificate of Eligibility must be submitted to the Veterans Coordinator to officially begin a veteran's file.

Service persons wishing to receive Veterans Administration benefits for the first time must present both copies of the Certificate of Eligibility at advance or general registration, or file Serviceman's Application for Veterans Administration Educational Benefits (22-1990a).

Transfer students who have received Veterans Administration Educational Benefits at another place of training or college but who wish to receive VA benefits for the first time at The American University should present both copies of Certificates of Eligibility at advance or general registration, or file Request for Change of Program or Place of Training (21E-1995) through the Veterans Coordinator. This is then sent to the Veterans Administrations's Regional Office in Washington, D.C., with Enrollment Certification (21E-1999).

Continuing Students

Continuing Students need only file The American University Veterans Administration claim card for educational benefits each semester thereafter. This request for *educational benefits must be filed each semester with the Veterans Coordinator*. Any and all changes in registration (adds, drops, and withdrawals) must be reported to the Veterans Coordinator.

Payment and Financial Responsibility

With the exception of disabled veterans who are training under Vocational Rehabilitation, all beneficiaries of educational benefits from the Veterans Administration are personally responsible for the payment of their bills to the University. These persons should come to the University financially prepared to pay tuition and fees. The Veterans Administration checks for educational benefits are sent directly to the student or address designated on The American University claim card. Those students who request and are granted advance payment pick up only the first check issued through the Veterans Coordinator; thereafter the checks are sent directly to the student or address on file with the VA. Normally it takes six to eight weeks from the time of filing a semester claim with the Veterans Coordinator before the first check arrives. Veterans whose claim cards are completely filled out will have their claim processed first. Incomplete claim cards (no file/claim number, etc.) will be processed last.

The Veterans Coordinator is part of the Office of Admissions, Financial Aid and Veterans Affairs, Programs and Services, which is located in the Asbury Building.



Student Life and Services

Division of Student Life

The Division of Student Life offers a program of services to students and faculty which complements and assists the University's formal academic programs. These services are implemented through the Career Development Center, Counseling Center, Office of Student Program Development, Center for Campus Ministries, Health Center, International Student and Faculty Exchange Office, and Residential Life Office. Dining services are coordinated through this division.

CAREER DEVELOPMENT CENTER The Career Development Center assists students and graduates of the University interested in obtaining part-time, temporary, and summer employment, and in seeking career employment to start after graduation. For the student needing part-time or temporary employment, the center offers information and assistance relative to a wide variety of job openings on the campus and the Washington metropolitan area. The center also has listings of many room and board situations for students and listings of job openings for part-time students needing a full-time job.

The center provides counseling, guidance, and other assistance in important aspects of career planning and career job seeking. The center maintains for student use reference materials pertaining to career employment opportunities in a broad range of occupational fields and employer situations. It provides a referral service by which credentials for applicants for career employment, particularly teaching candidates, are referred to interested employers on request. Through an annual campus interview program, the center offers an opportunity to graduating students for interviews with representatives of numerous business and industrial firms, government agencies, and school systems seeking career employees. The center also provides information to registrants on specific career job openings.

COUNSELING CENTER The aim of the University Counseling Center is to assist students to better understand themselves, to deal more effectively with important decisions, and to resolve problems. An extensive program of professional psychological services is provided.

Counseling is offered on an individual or group basis depending on which is more suitable. Help is available in vocational or educational planning, in resolving problems of a personal or social nature, and for pre-marital and marital concerns. In addition, there are encounter groups to enhance personal development. Other services include a variety of testing programs, an occupational information library, and a reading and study skills laboratory to improve educational skills.

There is no additional charge to full-time students for Counseling Center services. All contacts are confidential.

INTERNATIONAL STUDENT AND FACULTY EXCHANGE The Office of International Student and Faculty Exchange provides specialized services geared to the needs of foreign nationals and of U.S. students contemplating study outside the United States. These services include the general guidance of international students, coordination of U.S. and foreign faculty exchange, and guidance for U.S. student study abroad. Graduate level internships and individual reading or research courses are also provided for selected graduate and undergraduate students interested in international educational and cultural exchange vocations.

The American Indian Student Advisor is available to all Native American students to provide assistance and liaison in matters involving academic and vocational planning, personal problems and University relationships. Other services include assistance in utilization of local and national Indian organizations as sources for academic credit internships and independent study. Guidance and assistance is provided in locating financial assistance resources and involvement in local Indian activities.

CENTER FOR CAMPUS MINISTRIES Chaplains at The American University Center for Campus Ministries see their ministry to the campus in a broad context. Representing a wide variety of denominations and faith groups, they attempt not only to provide traditional chaplains' services of worship and personal counseling, but also to work in concert with other campus groups in making the University more responsive to the human needs of its members.

The Abraham S. Kay Spiritual Life Center houses the Center for Campus Ministries, including the offices of the chaplains, the chapel, a lounge, a Christian Science Reading Room, and meeting rooms. Protestant, Catholic, Jewish, Christian Science, and Muslim services are regularly scheduled here, as are other campus functions of various kinds. Worship tends to be both contemporary in style and involved with the life of the campus and the world. The Buddhist chaplain conducts regular meditation sessions.

There is an open and welcome atmosphere at the center, where students feel free to come and talk with one another or with a chaplain about problems or plans or ideas. There is opportunity to work with others of different religious backgrounds in a democratic way. To be involved here is to add significantly to the meaning of one's experience at the University.

Worship Services Each week during the Fall and Spring semesters (except during academic holidays) worship services are held at the Kay Spiritual Life Center.

STUDENT HEALTH CENTER The Student Health Center, under the supervision of an affiliate of the staff of Sibley Memorial Hospital, has a medical staff of several physicians who maintain regular office hours and consultants in various specialties, such as dermatology, to whom students are referred according to need. A nursing staff provides dispensary services during day and evening office hours on week days and Saturday mornings during the regular academic year to full-time undergraduate students and to other students who pay the health fee of twenty dollars a semester.

Since there are no facilities for bed patients, medical treatment is available at the student's expense at Sibley Memorial Hospital (or at another hospital of the student's choice) for serious illness or accident during the hours the dispensary is closed.

New full-time undergraduate students must submit before registration a report (on a form supplied with their admission notice from the Office of Admissions, Financial Aid and Veterans Affairs, Programs and Services) of the results of a physical examination by a physician of their choice. A student who does not have a full medical report on file is ineligible to receive any health service other than emergency treatment.

The Student Health Center is available to all full-time undergraduate students for diagnostic purposes and the care of minor illnesses only; the infirmary has no facilities for bed patients. Students whose health problems are more complex will be referred to nearby Sibley Memorial Hospital or another hospital of their choice for treatment at the student's expense.

Dispensary Hours:	7:30 am to 10.00 pm Monday through Friday 9:00 am to 3:00 pm Saturday
Doctor's Clinic Hours:	8:00 am to 11:30 am Monday through Friday 11:00 am to 1:30 pm Saturday
Holiday Hours:	Special hours are posted in advance.

Student Health Insurance Plan All full-time students may elect to participate in the Student Health Insurance Plan. Detailed information concerning this plan is available in the Student Health Center and the Student Life Office, Mary Graydon Center. Annual renewal must be initiated by each student before the Fall deadline (one week after classes begin.) No bills are sent.

RESIDENCE HALLS Space in University residence halls is available to full-time undergraduate students of The American University. The residence hall lease is binding for a full academic year (Fall and Spring semesters). The room rates are listed under the "Tuition, Expenses, and Financial Aid" section of this publication. For details on residence hall procedures and policies, as well as other services, please write to the Director of Residential Life.

Room Reservations Requests for information should be addressed to: Office of Residential Life, The American University, Washington, D.C., 20016.

A non-refundable \$100 room reservation deposit will be collected each year when availability of space for the student is confirmed.

Resident students must observe all regulations specified in the contract which they (and their parents, if students are under twenty-one) sign, as well as University regulations. They will be held responsible for damage to their rooms during their period of occupancy, and will be billed, either individually or with roommates, for damages.

Refund of Housing Payment A schedule of refunds upon withdrawal from the University during the semester will be announced and will thereafter be available in the Residential Life Office. Refunds may not be made to students moving off campus before completion of their contractual obligation.

Room Furnishings Each room contains a bed, chest, desk, chair, and closet space for each resident. Electrical equipment brought by the students is limited to small appliances such as clocks, radios, and irons. Individual cooking equipment such as broilers and fry pans cannot be used in the rooms. There are limited kitchen facilities in the residence halls.

Linen Service An optional linen service is available to residents. Arrangements for the service can be made after the student receives his housing assignment.

DINING SERVICES There is a cafeteria, snack bar, a *la carte* dining room, formal dining room, and tavern in Mary Graydon Center. The snack bar and tavern are open seven days a week except for holidays. Meal contracts are available, beginning with the first day of general registration and ending on the last day of classes (excluding vacations). Resident students are urged to buy meal contracts which are more economical than paying for each meal separately. The Food Service Department is willing to assist students in working out dietary and schedule problems. Refunds cannot be made after the first week of classes in each semester.

Other Services

BANKING FACILITIES The University operates no student banking facilities. However, a number of banks offering the necessary services are located within walking distance of the campus.

OFFICE OF STUDENT ACCOUNTS Following admission to the University, students handle all financial transactions with the University through the Office of Student Accounts located in Leonard Center.

CAMPUS BOOKSTORE The campus bookstore carries all required textbooks, a large selection of nonrequired books, all necessary paper supplies and stationary, college sportswear, college jewelry and gifts, magazines, newspapers, film and toiletry items.

MAIL SERVICE The University maintains a U.S. Post Office contract sub-station on the campus. Mail boxes are available at the Post Office for international students who reside off-campus. Mail boxes in each dormitory are furnished to resident students without charge.

Post Office hours are as follows:

Purchase of Stamps:	9:30 am to 4:00 pm
	Monday through Friday
Parcel Pick-Up	9:00 am to 5:00 pm
	Monday through Friday
	9:00 am to 12:00 pm
	Saturday

Student Activities

MARY GRAYDON CENTER The hub of campus life, Mary Graydon Center houses the University dining facilities, offices of various student organizations and the administrative and service departments of the Division of Student Life. In addition, there are meeting rooms and a commuter lounge where students may gather to study and relax. The Service Information Center, located in the lobby of the Mary Graydon Center, acts as the main desk for the University. Staffed by students, it is an excellent place to direct any questions that you might have, pick up the calendar of events or purchase the local newspaper.

STUDENT PROGRAM DEVELOPMENT OFFICE The Student Program Development Office assists both student groups and individual students in the facilitation of learning and personal growth beyond the classroom. The staff members specialize in activities counseling, advising and coordination of organizations, providing leadership training, and personal development programs. Students, in conjunction with the office staff, work together in developing programs related to student life.

STUDENT CONFEDERATION The Student Confederation is designed to be a University-wide undergraduate student government which represents the academic, social, and community interests of the student body. Membership consists of full-time undergraduate students who pay the required activities fee. One of the units of the Student Confederation is the Student Union Board. It establishes and executes projects and programs relating to social and community affairs. It is composed of a Board with various departments under its jurisdiction: Community Affairs, Social Activities, Student Health and Welfare, Student Affairs, and Union Operations.

Other student government groups are: Residence Hall Association, Inter-Fraternity Council, Pan-hellenic Council, Inter-Club Council, Judicial System, All-Kay Community, the Social Action Council, and OASATAU (Organization of Afro-American Students at The American University).

GRADUATE STUDENT COUNCIL The Council of Graduate Students serves as the advocate for graduate students at The American University, with representation on all policy-making bodies including academic policy boards. It participates in the planning of orientation and deals with areas of concern such as medical services for graduate students. The council, composed of representatives from the schools and departments in the University, sponsors social activities and publishes a newspaper for graduate students, *The Graduate*.

JUDICIAL SYSTEM The Judicial System, structured on the fundamentals of due process, is designed for the hearing and resolving of complaints against students and student groups. Underlying the entire program is a deep regard for discipline as a constructive element in education.

ALL KAY COMMUNITY The All-Kay Community coordinates the activities of the various religious groups and plans general religious activities.

SOCIAL ACTION COUNCIL The Social Action Council is dedicated to education, participation, and change. Focusing upon the problems of the city, SAC sponsors campus-wide training programs and speakers on urban affairs. SAC is involved in such projects as the Washington Area Study Project, D.C. General Hospital Program, Tutoring Program, service fraternities, a mental health program, and the Organization of Afro-American Students at the American University (OASATAU).

ATHLETIC PROGRAM There is intercollegiate competition for men in baseball, basketball, cross-country, golf, soccer, swimming, tennis, track, and wrestling. The American University is a member of the National Collegiate Athletic Association and the Middle Atlantic Collegiate Athletic Conference. In addition, the Student Confederation supports a team in club football, established in 1970. In 1973 The American University's basketball team was invited to the National Invitational Tournament in New York. Basketball star Kermit Washington was named All-American and Academic All-American.

Women have intercollegiate teams in basketball, fencing, field hockey, swimming, tennis, and volleyball. Intramurals for men and women include archery, badminton, basketball, billiards, bowling, football, golf, softball, swimming, table tennis, track, volleyball, and wrestling.

DEBATE The intercollegiate forensics program is coordinated by the Hurst R. Anderson Forensic Society. Members of the society participate in an extensive schedule of intercollegiate events including debate tournaments and contests in individual events.

DRAMA The American University Players present several classic and contemporary productions throughout the year and also schedule play readings, one-act plays, and dramatic television productions. Through work in various phases of campus theatre, points may be acquired to meet the requirements of active membership in the Green Room Players Club.

MUSIC Musical Groups on campus include The American University Chorale, The American University Orchestra, The American University Singers, and The American University Academy for the Performing Arts. The American University Singers schedule concert tours in addition to their campus programs. Qualified students may register in these musical organizations for credit.

POLITICAL ORGANIZATIONS There is a variety of political organizations on campus which encourage participation in local and national political campaigns and sponsor lectures by members of Congress, journalists, and representatives of different political parties. Recent organizations include Young Democrats, Young Republicans, Students for a Democratic Society, Young Americans for Freedom, Student Mobilization Committee, and Young Socialist Alliance.

PROFESSIONAL, SCHOLARLY, AND HONORARY SOCIETIES At The American University students can strive for election to both professional and service honoraries. The American University Chapter of the National Honor Society of Phi Kappa Phi was chartered in 1964. Professional honoraries are established in the fields of biology, chemistry, debate, dramatics, education, German language, graduate work, history, journalism, leadership, marketing, mathematics, music, political science, speech arts, and transportation. The service honoraries are Omicron Delta Kappa (men), Tassels and Diadem (women), and Mortar Board (women).

PUBLICATIONS AND BROADCASTING Students publish a weekly newspaper, *The Eagle*; a literary magazine, *The American*; and a yearbook, *The Talon*. The student radio station WAMU-AM and the University station WAMU-FM broadcast daily.

SERVICE ORGANIZATIONS There are three service organizations whose University chapters are nationally affiliated. Alpha Phi Omega and Omicron Kappa for college men provide wide fellowship programs with many leadership and service opportunities. The women's service sorority, Gamma Sigma Sigma, performs a variety of services for the University and community, including assistance in the settlement houses in the Washington area.

SOCIAL ORGANIZATIONS The University currently has chapters of eight nationally affiliated sororities and fraternities. The four sororities on campus are: Alpha Chi Omega, Alpha Epsilon Phi, Delta Gamma, and Phi Mu. The fraternities are: Alpha Epsilon Pi, Alpha Tau Omega, Alpha Sigma Phi, and Phi Sigma Kappa.



General Academic Regulations and Procedures

GENERAL CURRICULUM INFORMATION

REGISTRATION

GRADING SYSTEM AND RECORDS

DEGREE REQUIREMENTS (General, Undergraduate, Graduate)

GENERAL INFORMATION

As part of the process of providing a high quality of educational experience for the student, the University is undergoing a revision of its academic requirements. As a result, the information contained in this and other sections of this publication may be revised during the academic year. Students are advised to contact their deans or department chairmen to ascertain what new requirements may pertain to their individual programs of study during 1975-77.

General Curriculum Information

COURSE NUMBERS Each course is designated by a five-digit number. The digits to the left of the decimal point represent either the academic unit offering the course or a specific subject area within such an academic unit: 03.xxx Anthropology; 19.xxx Economics; 07.xxx Art History. The last three numbers identify the level of the course as follows: xx.001-xx.099 = no degree credit; xx.100-xx.499 = undergraduate degree credit; xx.500-xx.599 = graduate course to which advanced undergraduate students may be admitted; xx.600-xx.799 = graduate course to which undergraduate students normally are not admitted.

Off-campus courses carry either the letter O or C as a prefix to the academic unit code.

The present academic unit codes for course numbers are as follows:*

<i>Academic Unit Name</i>	<i>Course Number Code</i>
Administration of Justice.....	73.xxx
American Studies	02.xxx
Anthropology	03.xxx
Art: Art History	07.xxx
Studio and Design.....	05.xxx
Biology	09.xxx
Business Administration.....	10.xxx
	11.xxx
	12.xxx

* While the following codes appear on some University transcripts, they represent discontinued course number series: 01 xxx University Honors; 59.xxx Educational Technology.

Chemistry	15.xxx
Communication	17.xxx
Consortium and Cooperative Program Affiliated Institutions	
Catholic University of America.....	82.xxx
D.C. Teachers College.....	83.xxx
Gallaudet College	85.xxx
Georgetown University.....	86.xxx
George Washington University.....	87.xxx
Howard University.....	88.xxx
Mount Vernon College.....	84.xxx
Trinity College.....	89.xxx
Wesley Theological Seminary.....	81.xxx
Cooperative Education Program.....	00.xxx
Earth Science (Chemistry).....	27.xxx
Economics.....	19.xxx
Education.....	21.xxx
English Language Institute.....	74.xxx
Government and Public Administration: Government and Political Science.....	53.xxx
Independent Study.....	52.xxx
Public Administration.....	54.xxx
Washington Semester.....	56.xxx
History.....	29.xxx
Interdisciplinary Studies.....	75.xxx
International Service.....	33.xxx
Institutes: see appropriate academic unit or.....	31.xxx
Jewish Studies	34.xxx
Language and Foreign Studies: Advanced and Topics.....	37.xxx
Elementary and Intermediate	36.xxx
Learning Center.....	79.xxx
Liberal Studies	30.xxx
Literature.....	23.xxx
Mathematics, Statistics, and Computer Science: Mathematics and Computer	
Science.....	41.xxx
Statistics	69.xxx
Music.....	43.xxx
Applied Music (Private Study).....	44.xxx
Nursing.....	46.xxx
Performing Arts.....	67.xxx
Philosophy and Religion: Philosophy.....	60.xxx
Religion.....	61.xxx
Physical Education	49.xxx
Physics.....	51.xxx
Pride/American University Institute.....	71.xxx
Psychology	57.xxx
Sociology.....	65.xxx
Technology and Administration.....	55.xxx
University Courses.....	00.xxx

CREDIT VALUES Effective Fall 1970, the University changed undergraduate degree requirements from 120 semester hours to thirty-two course units. Course units, expressed in decimal notation in the course listings in this publication, can be in the following amounts: quarter course (c 00.25), half course (c 00.50), three-quarter course (c 00.75), full course (c 01.00), etc., at quarter unit gradations through quadruple course (c 04.00). All undergraduate-level course offerings, i.e., from the xx.100 level through the xx.400 level, are valued in course units.

For the purpose of transfer evaluation, it is recommended that a full course unit receive four semester hours credit.

Graduate courses, from the xx.500 level through the xx.700 level, continue to be valued in the traditional semester hour method. Graduate courses are also expressed in decimal notation: one semester hour (s 01.00), two semester hours (s 02.00), three semester hours (s 03.00), etc. There are no fractional semester hours credit.

For undergraduates permitted to take graduate-level courses, the following conversion from semester hours to course units applies, as expressed in decimal notation: s 01.00 = c 00.25; s 02.00 = c 00.75; s 03.00 = 01.00; s 04.00 = c 01.25; s 05.00 = c 01.75; s 06.00 = c 02.00; etc.

COURSE DESCRIPTIONS AND SYLLABI Descriptions of individual courses are given with the course listings in the "Colleges, Schools, and Departments" section of this publication. Course syllabi are available at the Reference Desk in the University Library.

COURSE PREREQUISITES Many courses call for a previous minimum background of knowledge, as indicated by courses cited in individual descriptions as *prerequisites*. Titles are those of The American University courses; equivalent courses satisfactorily completed at other accredited institutions also meet prerequisite requirements by transfer credit.

Administrative officers may sometimes waive prerequisites on the basis of experience and professional achievement. Where done, the student should secure the syllabus of the prerequisite course and complete the readings on his own. This will minimize the problem of gaps and out-of-date information.

Prerequisites mean the instructor will not use class time to go back and teach the material of the preliminary courses. Students are held responsible for entering the class already possessing the required competence. Thus, prerequisites warn students of the knowledge they are to bring with them in order to meet the expected standards of performance. Failure to possess this background can endanger the student's good standing and his ability to continue in the school. Therefore, students may be required to drop the course in question and register for the prerequisite course or courses instead.

INDEPENDENT READING COURSES AND STUDY PROJECTS An *Independent Reading Course* is defined as a course in which a student by pre-arrangement with an instructor reads a body of material with a minimum of formal instruction.

An *Independent Study Project* is defined as a course in which a student does research on a topic agreed upon by the student and the instructor, or engages in any mode of education deemed worthy of a student's efforts by the instructor responsible for the course. This may include teaching undergraduates on a guided basis, participation in educational programs off campus, travel under stipulated conditions, and so forth. In essence, this is a vehicle enabling the student to range as far as his interest and preparation carry him, subject to the approval of a faculty member and his school or department.

It is expected that registration in these courses will be at the regular registration period for a semester or summer session. It is possible, however, to register in an independent reading course or study project through the end of the ninth week of a Fall or Spring semester or second week of a Summer session. (A student desiring to begin such a course after the deadlines may do so informally, but he must register for the course at the beginning of the following semester thereby including the course in that semester's course load and tuition computation.)

These courses may be taken by undergraduates for one-quarter through two course units credit and by graduate students for one through six semester hours credit, the exact amount to be determined at the time of registration. These courses must be completed normally by the end of the semester of registration but, in no case, later than one calendar year from the date of registration.

Approval of the department chairman is required. In the event that the project duplicates a concurrently scheduled course, the approval of the dean of the school is also required.

Students registered in independent reading courses or study projects may be assigned conventional grades or, if they are undergraduate students, grades of pass or fail, according to agreement made at the time of registration. Once assigned, a grade of pass or fail cannot be changed to a conventional grade or vice versa.

It is expected that the student will meet periodically with the instructor to review his progress. If the student is not in Washington, it is assumed that he will be in correspondence with the instructor concerning his progress. Normally, the instructor will be expected to be residing in Washington while he is supervising one of these projects.

Students permitted to enroll in independent reading courses and study projects should enter on their registration forms the code of the department (01.xxx-75.xxx) which will supervise their work, followed by the number of the particular course to which they are being admitted. See below:

Undergraduate Level

xx.390 Independent Reading Course (c 00.25 through 02.00)

xx.490 Independent Study Project (c 00.25 through 02.00)

- xx.491 Internship (c 00.25 through 02.00)
- xx.398, xx.399 Departmental Honors Junior Year (c 01.00)
- xx.498, xx.499 Departmental Honors Senior Year (c 01.00)

Graduate and Advanced Undergraduate Level

- xx.590 Independent Reading Course (s 01.00 through 06.00)
- xx.690 Independent Study Project (s 01.00 through 06.00)
- xx.691 Internship (s 01.00 through 06.00)

NON-RECURRING SELECTED TOPICS COURSES A *Selected Topics Course (Non-Recurring)* is defined as any course or project involving a group of students on a non-recurring and/or experimental basis. This will include all courses which do not form a regular part of the curriculum of a department or school. In essence, this is a vehicle which will enable the faculty to offer courses on a single-time basis. It is also a vehicle for experimentation within the curriculum. It is distinguished from independent study projects in that it is open to groups of students under the same conditions by which a student registers for any course.

Departments making use of a non-recurring selected topics course will list such a course in the *Schedule of Classes* using the code of the department (01.xxx-75.xxx) followed by the code of the course (see below) and the title of the course.

Undergraduate Level

- xx.196 Selected Topics (Non-Recurring) (c 00.25 through 02.00)
- xx.296 Selected Topics (Non-Recurring) (c 00.25 through 02.00)
- xx.396 Selected Topics (Non-Recurring) (c 00.25 through 02.00)
- xx.496 Selected Topics (Non-Recurring) (c 00.25 through 02.00)

Graduate and Advanced Undergraduate Level

- xx.596 Selected Topics (Non-Recurring) (s 01.00 through 06.00)
- xx.696 Selected Topics (Non-Recurring) (s 01.00 through 06.00)
- xx.796 Selected Topics (Non-Recurring) (s 01.00 through 06.00)

SCHEDULE OF CLASSES The *Schedule of Classes* is published by the Office of the Registrar for advance registration and general registration for the Fall and Spring terms, and once for the Summer Sessions term. Information about which term any course will be offered is published in the *Schedule of Classes*, rather than in the *Catalog*.

CLASS PERIODS Day classes, except those on Wednesdays and Saturdays, ordinarily meet two days a week for seventy-five minutes a meeting. Wednesday and Saturday classes ordinarily meet once a week for two hours and thirty minutes. Some classes may meet three times a week for fifty or sixty minutes a meeting.

Evening classes ordinarily meet once a week for two hours and thirty minutes or twice a week for seventy-five minutes a meeting.

Classes at the xx.600 and xx.700 course levels may, in a number of cases, meet for a total of two hours a week at the discretion of the teaching unit concerned.

Courses involving laboratory, studio, discussion groups, or workshops may vary from the above schedules. Independent reading courses, study projects, internships, and similar types of study opportunities meet according to the special arrangements with the school, department, or faculty members concerned. Students are advised to note carefully the meeting times listed in the *Schedule of Classes* for each academic term.

EMERGENCY CANCELLATION OF CLASSES In the event of an emergency, University classes are cancelled when the District of Columbia and United States Government authorities close District and Federal offices. Otherwise, unless cancellation of classes under special circumstances is announced publicly through the media, classes will meet. When cancellation of classes is necessary, instructors are expected to arrange for additional reading, study assignments, or class meetings to compensate for attendance time lost.

CLASS LOCATIONS Most classes meet on the University campus located at Ward Circle at the intersection of Massachusetts and Nebraska Avenues, N.W. A few classes meet at special locations as indicated in the *Schedule of Classes* for each academic term.

A standard program of off-campus instruction is administered by the College of Continuing Education which arranges for course offerings at selected off-campus locations throughout the metropolitan Washington area. These include both undergraduate and graduate courses in several fields offered

by the University and come under the same regulations and conditions as credit earned in courses meeting in University facilities on campus.

Although scheduling of off-campus classes follows the general pattern of the University calendar and time schedule, it does not necessarily conform to the campus semester dates in all details. The *Off-Campus Schedule of Classes* for each academic term should be consulted for further information.

CLASS ATTENDANCE The University considers class attendance a matter best left to the discretion of the individual classroom instructor. It is expected, however, that those faculty members who require a stated attendance policy will announce that policy at the first few class meetings each semester.

Veterans and others receiving government benefits are reminded that the paying agency may have specific attendance policies. Details of veterans benefits are available from the Veterans Counselor in the Office of Admissions, Financial Aid and Veterans Affairs, Programs and Services.

Registration

PROCEDURE Registration is conducted on the dates specified on the academic calendar published in detail in the *Schedule of Classes*. In order to register a student must: (1) be admitted to the University or be approved for enrollment for non-degree study; (2) secure approval of his program of study from his academic advisor; (3) complete the necessary registration forms and pay his tuition and fees; and (4) turn in all registration forms to representatives of the Office of the Registrar. More detailed information and instructions are published in the *Schedule of Classes*.

ADVANCE REGISTRATION All students, full-time or part-time, graduate, undergraduate, or non-degree, with the one exception of new international students, are eligible to advance register for the Fall and Spring semesters. No financial obligations are included in advance registration. Payment of tuition and fees must be completed by the dates announced for each semester in the *Schedule of Classes* or on the student's confirmation of course enrollment. Full details on advance registration are issued each semester by the Office of the Registrar.

LATE REGISTRATION Late registration, subject to a \$15 fee, is permitted during the period provided in the academic calendar. No student will be allowed to register after these dates.

AUDITORS A student who wishes to attend a class but who does not wish to participate, take examinations, receive a final grade, or receive credit for the course may register as an auditor. Tuition and fees for auditors are the same as those for students registering for credit.

COURSE AUDIT BENEFIT PROGRAM FOR UNDERGRADUATE STUDENTS Qualified undergraduate students may audit up to three undergraduate courses in a standard degree program upon completion of their thirty-second course at The American University. Enrollees in this program must have a cumulative grade point average of 3.50 upon completion of the twenty-fourth course at The American University. (No I or N grades are included in this computation). Registration is accomplished with a special add slip during the first two weeks of a semester. Special Audit courses do not involve tuition fees but any associated fees (e.g. music fee) are payable by the student.

NON-DEGREE STUDENT REGISTRATION If a student does not wish to pursue a degree program but desires to register for particular courses for which he has the necessary qualifications, he may be considered for admission to the College of Continuing Education as a non-degree student. He receives full academic credit for courses taken (unless he registers as an auditor, in which case he is not responsible for attendance or examinations and does not receive a grade or academic credit).

CHANGES IN REGISTRATION

Add/Drop A student who finds it necessary to add or drop a course, or change a credit value (in a variable credit course) or grade type in a course for which he is already enrolled, may make such an adjustment to his registration starting on the first day of classes of each semester. A student may not add a course after the second week of classes for each semester (excepting independent reading courses or study projects which may be added through the tenth week of classes). A student may not change his grade type in a course from or to pass/fail, or from audit to credit after the second week of classes. A student may drop a course or change his grade type in a course to audit through the fourth week of classes.

To officially effect the above, a Course Registration Change Form must be processed in the Office

of the Registrar after securing the appropriate approval signatures. Detailed instructions are provided with the appropriate forms as well as in the *Schedule of Classes* for each term.

Withdrawal from All Classes or the University A student who wishes to withdraw from courses for which he is enrolled during a given term must execute a Withdrawal Request form initiated in the office of his dean. This same form may be used for withdrawal from the University. Discontinuation of attendance in class or notification of a status change to the instructor does not constitute an official withdrawal. If the withdrawal will result in a refund, requests for such refunds should be made in the Office of Student Accounts.

International Students International students must have any change in registration approved by the International Student Advisor or his designate.

OFF-CAMPUS REGISTRATION The College of Continuing Education arranges for course offerings at selected off-campus locations throughout the metropolitan Washington area. These courses provide both graduate and undergraduate programs as well as non-degree study opportunities. Although the scheduling of off-campus courses follows the general pattern of the University calendar and time schedule, it does not necessarily conform to the campus semester dates in all details. Students should consult the *Off-Campus Schedule of Classes* published for each academic term.

While students may register for most off-campus courses during advance and general registration, special registrations are held at the off-campus locations. For further details, consult the College of Continuing Education.

CONSORTIUM OF UNIVERSITIES REGISTRATION In cooperation with The Catholic University of America, Georgetown University, The George Washington University, Howard University, D.C. Teachers College, Gallaudet College, Mount Vernon College, and Trinity College, The American University offers its qualified undergraduate and graduate degree students the opportunity to enroll for courses at these other institutions through the Consortium of Universities of the Washington Metropolitan Area. Such courses are normally limited to those which are not offered by or which may not be immediately available at The American University. Credit earned through this program is considered residence credit.

Students in an undergraduate program at The American University will be granted a quarter course unit credit for each semester hour credit of approved undergraduate study at a consortium institution. Graduate level credit, however, if taken as part of an undergraduate degree program, will be treated differently, granting a full course unit (equals four quarter course units) for a three semester hour course taken at a consortium institution.

Courses in the off-campus program of The George Washington University may not be taken through the consortium program by American University students, nor may students from other consortium universities take American University off-campus courses through the consortium program.

Independent reading courses, independent study projects, and special tutorial courses, as well as courses offered in medical, dental, nursing, or law are excluded from consortium registration.

To be eligible for this program, students must: (1) be fully admitted degree students, (2) be actively enrolled, (3) be in good academic standing, (4) be approved by the dean or department chairman of the subject matter field for which registration is requested (and who is responsible for securing approval at the cooperating institution), and (5) be approved by the Office of the Registrar.

Forms to be used for this program are available in the Office of the Registrar. Students must follow the registration procedures as published in the *Schedule of Classes* for that term, and pay the tuition rate of this University.

CONSORTIUM LIBRARIES Graduate degree students enrolled in one of the consortium universities or associate member colleges listed above will be eligible for direct-borrowing permits. Applications for a consortium borrowing card are to be made at the main library of the home university.

Any eligible consortium student who registers for a course at another consortium institution automatically receives borrowing privileges at the institution giving the course.

ACADEMIC ADVISING AND COUNSELING The philosophy inherent in the educational process at The American University embraces three major principles: (1) flexibility in academic programs; (2) responsibility on the part of students in planning their academic programs; and (3) adequate guidance and support from faculty and staff in helping students plan their programs.

For undergraduate students the process of academic advisement is initiated prior to the freshman year. Under the direction of the Associate Dean of the College of Arts and Sciences, the incoming student is assigned a faculty advisor based on the student's general area of interest. In schools

and colleges other than the College of Arts and Sciences this faculty member would normally continue in his role as academic advisor until graduation, unless the student transferred to a different college or school in the University. In the College of Arts and Sciences, a student's freshman advisor continues to assist him from the beginning of his academic career until he formally declares a major (by the end of his sophomore year), at which time he is assigned an advisor in his major field of study.

The American University is committed to proper academic advisement. All full-time faculty members are required to schedule regular, posted office hours of a minimum of four hours per week. Students are also welcome to meet with their undergraduate or graduate dean or counselors in their college or school when they wish to do so. Working in conjunction with the academic offices are the Counseling Center and the Office of Career Development.

The flexibility of academic programming and the need for mutual sharing of this responsibility between faculty advisors and students necessitates an on-going interchange between the student and his advisor. Prior to registration for each semester's work, the student must meet with his faculty advisor to plan his program and secure the required approval on his registration form. Any subsequent addition in the student's schedule of classes must also be approved by his advisor.

The College of Continuing Education provides non-degree students with a full-time advisement staff and the opportunity to arrange evening appointments when necessary.

Grading System and Records

CALCULATED IN GRADE POINT AVERAGE

- | | |
|-------------------------------|---------------------|
| A = excellent (four points) | D = poor (1 point) |
| B = good (three points) | F = fail (0 points) |
| C = satisfactory (two points) | |

POSTING SYMBOLS

- R = Follows grade entry indicating
course has been repeated

NOT CALCULATED IN GRADE POINT AVERAGE

- | | |
|---|---|
| I = incomplete | U = unsatisfactory |
| L = auditor (no credit) | W = withdrawal |
| N = no grade reported by instructor or
invalid grade | Z = no grade reported for a pass/fail
registration |
| P = pass | ZF = fail (for pass/fail registration) |
| S = satisfactory | |

D GRADES No degree credit is earned by a graduate student for a D grade received in a graduate-level course. However, the D grade is used in the calculation of the grade point average.

PASS/FAIL ENROLLMENT For undergraduate students the grade P indicates a quality of performance no less than C on a conventional grading scale.

For graduate students the P (normally given only for independent reading courses or research projects) indicates satisfactory completion of the work at the graduate level.

For both undergraduate and graduate students a grade of P does count toward graduation.

Effective with Fall 1969, undergraduate students may take up to 50% of their courses on a pass/fail basis. (With approval of a student's major department, a greater percentage of courses may be taken on a pass/fail basis.)

The pass/fail option may be granted to non-degree students at the discretion of the Dean of the College of Continuing Education.

REMOVAL OF INCOMPLETE The grade of I (Incomplete) is given only to students who have made arrangements in advance with the instructor for the late completion of a course. A special form for this purpose is available from the Office of the Registrar and all deans' offices. Upon the completion of the requirements of the course within the time specified on the Incomplete Removal Form, the grade of I must be resolved to an A, B, C, D, or F. Completion of such work may not extend beyond the end of the semester following that in which the I was given. Unless resolved to one of the grades indicated above, the I will stand as the permanent grade. A W may not be given to remove a grade of I.

GRADE POINT AVERAGE The cumulative grade point average includes only those courses taken for conventional grades (A, B, C, D, F). Courses taken on a pass/fail basis are *not* included in the grade point average, nor are grades of incomplete (I).

Only grades earned at The American University are computed in the cumulative grade point average. Credits accepted on transfer from other institutions are included in the total number of undergraduate course units or graduate semester hours applicable to degree requirements, but are *not* included in the grade point average.

Credits accepted on transfer from another institution are included as "advanced standing" in the total number of credits applicable to degree requirements, but grades earned in such courses are not recorded on the permanent record at The American University, and are not used in computing the average needed for graduation. Only grades earned at The American University can be used for this determination.

FRESHMAN FORGIVENESS RULE Since Fall 1963 a freshman student who, during the first two semesters of full-time study, receives a grade of F in a course may repeat the course within the calendar year thereafter or in the next two regular semesters in which the student is registered at The American University. No grades shall be removed from the record but when such a course is repeated only the grade earned the second time the course is taken shall be used in the computation of the cumulative grade point average for purposes of making decisions concerning probation, dismissal, and required average for graduation.

A part-time freshman student who during his first eight course units of study receives grades of F in courses may repeat these courses within the calendar year after the semester in which the grades of F were received with resulting cumulative grade point average benefits stated above.

Students who are re-admitted to the University before they have begun their third semester of college work may within one calendar year after their re-admission retake courses in which they received grades of F during the first two semesters at The American University with the same benefits stated above.

The foregoing regulations concerning repeated courses are not applicable to students who enter the University as transfer students, including those who enter as transfer students with freshman status (less than four course units) or to pass/fail courses.

REPETITION OF COURSES Whenever a course is repeated, each attempt, including the final grade, is entered separately on the permanent academic record. Unless specifically indicated to the contrary, however, only one successful attempt of a course is counted toward fulfillment of graduation credit requirements. With the exception of the Freshman Forgiveness Rule, the grades received in all attempts are considered in the computation of the cumulative grade point average.

ACADEMIC PROBATION AND DISMISSAL A student who fails to maintain the academic average required by the University and by his college, school, and/or department is subject to dismissal. An undergraduate student who does not maintain this average but who gives evidence of probable substantial improvement may, under certain circumstances and at the discretion of his dean, be placed on academic probation for a specified period of time in lieu of being dismissed. Graduate students and non-degree students are subject to dismissal at the end of any session during which their cumulative grade point average falls below the required minimum. Graduate students who fail to satisfy requirements for the degree may be dismissed.

A student who is dismissed may not be re-admitted to the University or any of its colleges and schools until a waiting period equivalent to a full calendar year after the effective date of his dismissal has passed.

An undergraduate student who fails to achieve and maintain a 2.00 (C) grade point average during his first two semesters of full-time study (or the equivalent part-time study) but whose cumulative grade point average is 1.75 or above, may be placed on academic probation for one year. Academic probation is an action customarily taken only in the first two years of full-time study (or the equivalent amount of part-time study) for undergraduates. Dismissal may be anticipated by any student who in his third or fourth years of full-time study (or the equivalent amount of part-time study) falls below a C in his cumulative grade point average, or whose average in any semester drops to a D or below.

Actions involving academic probation and dismissal (but not academic warnings) are entered on the student's permanent record and the removal of these entries after they are made is not authorized.

A graduate student who fails to maintain a grade point average of 3.00 may be granted probationary status for one semester after which time the student must have a 3.00 average or be dismissed.

The calculation of the average for this purpose begins after the first twelve semester hours have been completed.

TRANSCRIPTS A student may obtain a transcript of his academic record from the Office of the Registrar. There is a \$2 fee for each official transcript.

The University will not issue a transcript which reflects only a part of a student's record, nor will it make copies of transcripts on file from other colleges and universities.

Transcripts will be released only on the written signature request or release of the student concerned.

CERTIFICATION OF ENROLLMENT The Office of the Registrar supplies upon request of the student involved, certification of certain academic data concerning the records and status within the University of currently enrolled students. These certifications are used for HEW and scholarship forms, employment applications, etc. They are not to be confused with transcripts of the student's permanent academic record.

NAME CHANGE The name of a student entered on the permanent records of the University cannot be altered (except for the correction of misspellings) unless the name has been legally changed, and in such cases the request for the change must be accompanied by a copy of the court order or other official document which will be retained in the student's file.

Degree Requirements

General Degree Requirements

STATUTE OF LIMITATIONS It is University policy that no student shall be involuntarily subject to regulations and academic requirements introduced while he remains continuously enrolled and in good standing in the degree program which he originally selected, if the new regulations involve undue hardships or the loss of academic credits earned to satisfy the requirements previously in effect.

The following regulations are, however, in effect for all students:

(1) A student who ceases to attend the University for a period of one term, whether voluntarily or not, is subject to all the regulations and must meet all the requirements in force at the time that he resumes his studies unless other arrangements have been agreed to by his dean, and recorded in writing prior to the beginning of his absence.

(2) A student who changes his degree objective or his college or school, whose candidacy for an advanced degree expires, or who elects to conform to regulations or requirements instituted while he is enrolled, must be prepared to complete all of the requirements and abide by all regulations in effect at the time he makes the change.

(3) Candidacy for a master's degree expires no later than three years after the date of first enrollment in the degree program. Candidacy for a doctoral degree expires no later than five years after the date of first enrollment in the doctoral program. However, the doctoral student is permitted seven years if he enters a doctoral program directly from a bachelor's degree. A student may petition for an extension of candidacy in a degree program for a limited period if such extension is sought prior to the expiration of these specified time limits. If, however, the time limit has expired, a student wishing to resume his work may seek re-admission to the University once for a period of no more than three years. Re-admission for resumption of an advanced degree program may involve the completion of additional courses or other appropriate work. Any degree calling for additional undergraduate prerequisite courses has the statute of limitations extended in the proportion that the prerequisite requirements bear to the graduate credit requirements.

Other than as stated above, the University has no strict regulations with respect to the total amount of time in which a student may fulfill the requirements for a degree, provided that he maintains the appropriate grade point average and gives evidence of being seriously interested in the eventual achievement of his academic objective.

The University is liberal in accepting credit earned in the past. Nonetheless, a student who has not been engaged in formal study for a number of years or whose study has been intermittent, at The American University or elsewhere, must understand that he will not necessarily receive full credit for work he has completed previously simply because it is a matter of record. This applies to undergraduate students as well as to graduate students.

COMPLETION OF DEGREE REQUIREMENTS AND COMMENCEMENT The University confers

degrees and issues diplomas at the end of the Fall (December graduation), Spring (May graduation), and Summer (August graduation) terms. A formal commencement ceremony is held only in May at the end of the Spring semester. Diplomas are mailed to students completing degrees at the end of the Fall and Summer.

Application for Graduation Candidates for degrees are to file an Application for Graduation Form in the graduation clearance section of the Office of the Registrar no later than the date listed below for the particular graduation:

Graduation	Application Deadline
August 1975	April 1, 1975
December 1975	June 1, 1975
May 1976	September 15, 1975

All students are urged to consult the academic calendar published in the *Schedule of Classes* for each term. Graduate students are especially advised to consult the more detailed information about comprehensive examinations, thesis and dissertation deadlines, etc., available from academic offices and included in the academic calendar in the *Schedule of Classes*.

Effective with the December 1975 graduation, students will pay a \$15 graduation fee.

Certification of Students for Graduation Only after application for graduation has been made can the Office of the Registrar begin processing the necessary information for final certification for graduation. Students who fail to complete all their requirements by the end of the term for which they applied to graduate will not be certified and graduated for that date. Such students *must re-apply for graduation at a later date*.

Undergraduate Degree Requirements

The fundamental graduation requirement for the bachelor's degree is a total of thirty-two course units. (For purposes of curriculum planning and transfer credit, a course unit is deemed equivalent to four semester hours.) In addition to this requirement, the student must follow the appropriate requirements mentioned below as well as those stipulated by the individual college, school, or department of his degree major program.

Colleges and schools offering the B.A. degree may require no more than 50% of the total course units taken in major and major-related fields. If the teaching unit requires more than 50% of a student's courses in major and major-related fields, or if the student through his selection of courses exceeds 50% in major or 75% in major and major-related fields, the degree offered to the student shall be a B.S. or some comparable degree other than the B.A.

UNIVERSITY REQUIREMENTS Effective Fall 1970, the University abolished the distribution requirements in the social sciences, the natural sciences, and the humanities areas. The remaining undergraduate requirement is the English requirement as described below.

Students throughout the University are extended the option of enrolling in English Composition and Reading I and II (ECR), Selected Human Problems I and II, or special Literature Department seminars. These courses are not equivalent courses, i.e., enrollment in one course would not make enrollment in another redundant. They are, rather, alternative courses in the sense that satisfactory performance will certify the student's writing ability. *Any two of these courses taken in any order will serve to satisfy the University English requirement.* The reasoning behind this view of the relationship is that the ECR courses are explicitly designed to guide the development of the student's writing ability; Selected Human Problems and the seminars, on the other hand, are interdisciplinary courses with their own well-defined syllabi which include no explicit training in writing techniques. They do, however, require an amount of written work comparable to the amount required in ECR. Therefore, the evaluation of the student's performance in these courses contains implicit evaluation of his writing ability. The increased flexibility provided by the above options allows the student to adjust his University English requirement to meet his individual needs.

WAIVER On the basis of tests and records the University may permit undergraduate degree students to waive all or part of the undergraduate University requirement in composition and reading. Waiver examinations in foreign languages are given at the University during the course of the school year.

When students transfer courses which are essentially "continuation courses" the grade earned in the final semester of such courses will determine whether the entire sequence is creditable for University requirements purposes only. (This regulation shall not be interpreted as granting credit

for courses transferred with a grade below B or C according to the institution from which the courses are transferred.)

DEGREE MAJOR AND MAJOR-RELATED REQUIREMENTS Each undergraduate student must complete a minimum of six course units (no less than four of which must be earned at The American University) as approved by an advisor designated by the department chairman or dean in charge of his degree major field. No course in which a grade of less than 2.00 (C) is earned may be counted among the courses acceptable for his major. A student who wishes to major in two separate fields or subjects will be expected to complete the degree major course unit credit requirement specified for each.

An undergraduate degree student must ordinarily complete certain course work in approved areas related to his degree major. He may also be required to complete course work (or establish his level of proficiency in some other approved way) in tools deemed desirable for his major (e.g., accounting, languages, statistics, or others). These two courses may be part of, or in addition to, the requirement with respect to related courses, at the option of the college, school, or department.

The various colleges, schools, and departments may establish other requirements which must be met by each of its candidates. Consult individual academic listings in the "College, School, and Departments" section of this publication.

ELECTIVES To complete the minimum requirement of thirty-two course units for an undergraduate degree, the student may add electives in appropriate fields of interest to the requirements detailed above.

RESIDENCE REQUIREMENTS To be eligible for an undergraduate degree from The American University, an undergraduate student must complete in residence at The American University a minimum of eight course units out of his last sixteen units toward a degree. To satisfy this requirement, *the student must be enrolled as a degree student* at the time that he takes and satisfactorily completes these course units. *Non-degree course work cannot be applied toward the satisfaction of the residency requirement.*

An undergraduate student who transfers from another institution with advanced standing in the field of the degree major is required to do a minimum of four course units at the upper-level in the college, school, or department from which he has applied for graduation. More may be required by the individual department chairman or dean.

UNDERGRADUATE LEAVE OF ABSENCE Undergraduate students desiring some kind of leave of absence for reasons other than study at another collegiate institution should request an appointment with their dean. At the dean's discretion, based on whether or not it seems desirable to guarantee the student an automatic re-admission, the dean will issue a permit for leave of absence. One copy will be given to the student, one retained in the dean's office, and one forwarded to the Office of the Registrar for filing in the student's folder. This permit will specify a limitation of one year maximum automatic re-admission to the same undergraduate program. It will also specify that the permit becomes void if the student attends any domestic or foreign collegiate institution during the period of the leave. In such instances, the student should obtain from his dean the Permit to Study at Another Institution prior to leaving The American University.

STUDY ABROAD Students with certain educational objectives may include in their undergraduate program study at an institution abroad. American University students may wish to consider the following options in planning their academic work.

Study Abroad Programs This term is used to refer to a "junior year abroad" or any program at a foreign institution which is a formal part of a regionally accredited U.S. college or university, and is recorded on the transcript of that institution. For determination of regional accreditation, the publication *Credit Given* is the accepted reference.

After consultation with and approval from the student's dean, application is made directly to the institution for admission to its foreign study program. Transfer credit will be granted on the basis of the transcript from the sponsoring U.S. college or university.

Attendance at an Institution Not Affiliated with an American College or University The student must seek approval of the institution to be visited from his dean and the Coordinator of International Admissions in the Office of International Student Admissions at The American University. (The Office of International Admissions is part of the Office of Admissions, Financial Aid and Veterans Affairs, Programs and Services.) The Office of International Admissions will give final approval of the institution to be attended, and will evaluate the transcript on the student's return for the value in semester hours of the work taken. The Office of the Registrar will convert the semester hour value

into course unit values for undergraduate students. The student's academic advisor and dean will approve the academic areas or specific courses for study. Students must be warned of the possibility that they might not receive credit for remedial language study if they are found deficient in the language of the country to be visited.

Attendance at an Institution Not Approved for Study Abroad Should a student decide to attend a foreign institution which cannot be approved by the Office of International Admissions for transfer credit, it may be possible to arrange for "competency examinations" on his return. Specific details should be worked out prior to departure. Arrangements and agreements should be in writing between the student and his dean, with one copy of the agreement filed in the student's permanent file in the Office of the Registrar. A fee for competency examinations is charged.

TRANSFER OF CREDIT Students who take courses in other colleges and universities for transfer credit to The American University must receive prior approval in writing from their advisors and the dean of their college. This work is usually undertaken during the summer or as part of an overseas study program ("junior year abroad"). Credit may be denied if the student does not receive prior permission.

NORMAL ACADEMIC LOAD AND FULL-TIME STATUS An undergraduate student admitted to and enrolled in a degree program normally carries each semester four course units to satisfy the required minimum of thirty-two course units for the baccalaureate degree. In any given semester, such a student may carry a minimum of three course units and be classified and/or certified (for veterans benefits, financial aid, etc.) as full-time for that semester. The additional course units must be made-up through Summer enrollment or by an overload (if approved) in the following (or previous) semester in order to remain in normal progress annually toward the degree, as often required by the regulations of government agencies. The student is urged to become familiar with such regulations. Four and three-quarter course units is considered the maximum load without special approval.

ACADEMIC OVERLOAD An undergraduate student desiring five or more course units in a given semester is required to have the approval of his academic advisor and the appropriate dean. The approval is for the overload in general, not permission for a specific course. Generally, such approval will be granted when the student ranks within the upper 25% of the undergraduate student body based on his cumulative grade point average in work taken at The American University. It is also understood that the student should have no incomplete grades to be made-up.

Except for seniors, no student will be allowed to register for a fifth course unit until the general registration period.

COURSE UNITS AND DETERMINATION OF CREDITS Effective Fall 1970, undergraduate graduation requirements were changed from a minimum of 120 semester hours credit to a minimum of thirty-two course units credit. Under the course unit system, semester hour credit is no longer assigned to undergraduate courses. For purposes of transfer evaluation, however, it is recommended that a course unit receive four semester hours credit. Students registered at The American University prior to Fall 1970 or those contemplating transfer to The American University should use the following schedule in equating previously earned semester hours credit to the course unit credit system:

15 semester hours = 4 course units
 30 semester hours = 8 course units
 45 semester hours = 12 course units
 60 semester hours = 16 course units

75 semester hours = 20 course units
 90 semester hours = 24 course units
 105 semester hours = 28 course units
 120 semester hours = 32 course units

Semester hour credit less than fifteen or in excess of a multiple of fifteen is converted to course unit credit according to the following scale:

1 hr $\frac{1}{4}$	2 hrs $\frac{1}{2}$	3 hrs $\frac{3}{4}$	4 hrs 1	5 hrs $1\frac{1}{4}$	6 hrs $1\frac{1}{2}$	7 hrs 2	8 hrs $2\frac{1}{4}$
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9 hrs $2\frac{1}{2}$	10 hrs $2\frac{3}{4}$	11 hrs 3	12 hrs $3\frac{1}{4}$	13 hrs $3\frac{1}{2}$	14 hrs $3\frac{3}{4}$	15 hrs 4
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Graduate level courses at The American University remain expressed in the semester credit hour system. Some of these offerings are available to advanced undergraduate students. In such enrollment cases, the above conversion scales do not apply; see "Credit Values" under the "General Curriculum Information" section of this publication.

CLASS STANDING The class standing of an undergraduate student is determined at the end of each academic year on the basis of the number of course units satisfactorily completed during that year and the preceding Summer sessions (including those accepted by the University as transfer credit), although these are not calculated into the student's grade point average. It is tabulated by the Office of the Registrar as follows:

- 0 through 7 completed course units = freshman standing
- 8 through 15 completed course units = sophomore standing
- 16 through 23 completed course units = junior standing
- 24 through 32 completed course units = senior standing

UNDERGRADUATE STUDENTS ENROLLED FOR GRADUATE DEGREE CREDIT A senior student with the permission of his department chairman or dean may enroll in specifically approved graduate courses not required for his undergraduate program. *Such courses must be designated in writing as graduate degree credit at the time that the student registers for them. A copy of this written agreement must be placed in the student's folder in the Office of the Registrar. Retroactive application of these credits for such purpose is not permitted.* Credit for these courses may be applied toward meeting the course requirements for a graduate degree after the student has been awarded his undergraduate degree *and provided* that he is then admitted to a graduate degree program.

No course or courses may be counted as credit toward both an undergraduate and a graduate degree, except as may be provided in a formally prescribed combined undergraduate-graduate degree program.

DECLARATION OF UNDERGRADUATE DEGREE MAJOR By the end of the sophomore year (completion of fifteen courses units), if not before, each undergraduate student must choose and declare an academic major. Formal declaration of the major is required on a form available from the dean's, departmental, or Registrar's offices. *Admission to the University in an undergraduate program does not automatically constitute admission to a major program* (except in the School of Nursing). Acceptance is official only when specific approval has been received from the department or program chairman or his designate and is recorded by the Office of the Registrar.

CHANGES IN COLLEGE, SCHOOL, OR MAJOR A student who wishes to change from one college or school to another, or from one major to another must receive the permission of the dean and/or department chairman in charge of the program to which he wishes to transfer. This must be done on forms available from the dean's office or departmental office and filed in the Office of the Registrar. A change in college, school, or major affiliation, when approved, does not become effective until the beginning of the next semester. It does not become effective if the student becomes subject to suspension or dismissal for failure to maintain University minimum standards.

DOUBLE MAJORS A student can complete a double major by satisfactorily passing the required major and major-related course work required by the two departments and/or schools.

If the double major is pursued in two schools, the student must designate at the time of his declaration of the two majors which single school he will be registered in and graduated from. He will need to satisfy the general school requirements (e.g., College of Arts and Sciences language requirement) of that single school only.

A student may apply the same course to both major programs if it fits into both sets of requirements.

If a student is majoring in two recognized majors in distinct departments or schools, and if neither teaching unit has required him to take more than 50% of his courses in the major and major-related fields, and if he has not through his own selection of courses exceeded 50% in either major or, counting each major and its related fields separately, exceeded 75% in one of his majors and those areas defined as related fields in that major, he has satisfied the requirements for a B.A. degree. If the student does not meet these conditions, he should receive a B.S. or some comparable degree.

TWO UNDERGRADUATE DEGREES A student may qualify for two undergraduate degrees if he satisfies both major and major-related requirements within two departments and/or schools and accrues a minimum of forty course units.

DEAN'S LIST AND GRADUATION HONORS Undergraduate students are eligible to be graduated with honors provided that they have completed at least one-half, i.e., at least sixteen of the course

units required for their degree in residence at The American University and have achieved the requisite grade point average. Up to four course units but no more than four course units taken on a pass/fail basis may be included in American University work applied toward honors, but these courses will not be computed in the grade point average.

Undergraduate honors and the grade point averages required are as follows: *Summa cum laude*—3.90 or higher; *Magna cum laude*—3.75 through 3.89; *Cum laude*—3.50 through 3.74.

The term "honors" should be applied only to programs in the student's degree major field, whether those programs be departmental, school-wide, or interdisciplinary in character.

Departmental honor programs may be instituted at the option of the colleges and schools. In the College of Arts and Sciences, students selected for departmental honors programs in their major subjects enroll during their junior and senior years in up to three (or four) special projects and upon successful completion are recommended to receive departmental honors.

Each college or school may issue a "dean's list" of its undergraduate honor students each session. The minimum standard for inclusion in such a list is a 3.50 grade point average for the term earned in a full-time undergraduate program totaling not fewer than four completed course units.

Honors earned through grade point averages are listed in the commencement program and on the diploma. General and departmental honors are listed only in the student's permanent records and in the commencement program.

Graduate Degree Requirements

These degree requirements are currently undergoing revision by the University Senate for later application. Candidates for graduate degrees are advised to contact their own particular dean or department chairman for subsequent developments and more detailed information.

Candidates currently enrolled for graduate degrees will be subject to those academic regulations in effect at the time of their admission.

TRANSFER OF CREDIT Credit may be considered for transfer at the time of admission, provided the admission is not provisional, or at advancement to candidacy, or other specific times established by the academic unit. A maximum of six hours of graduate credit earned with a B or better may be transferred into a master's degree program. For transfer of credit to doctoral programs, see "Semester Hour and Residence Requirements" below. Transfer of credit is subject to the approval of the appropriate department chairman and dean.

GRADUATE STUDY AT ANOTHER INSTITUTION In a program of graduate study, there may arise circumstances wherein a graduate student, with the advice and counsel of the student's academic unit, may find it appropriate to take a graduate course not offered at The American University but available at a non-Consortium institution. In this event, the student must submit *in advance* a properly executed Permit To Study At Another Institution form. The student must, however, conform to regulations governing the maintenance of matriculation at The American University during each Fall semester. In addition, the student must still satisfy the residence requirements set forth in the University Minimum Standards for Graduate Studies.

EVALUATION OF GRADUATE STUDENTS A minimum cumulative grade point average of 3.00 in graduate study is required to maintain good standing at both master's and doctoral levels. This calculation will be made upon the completion of the first twelve semester hours of graduate study and at the end of each semester thereafter.

ADVANCEMENT TO CANDIDACY Each academic unit may at its option require a formal advancement to candidacy and determine the nature of the advancement procedure it will use.

SEMESTER HOUR AND RESIDENCE REQUIREMENTS

Master's Degrees (1) At least thirty semester hours of graduate work including: (a) six semester hours of research resulting in a thesis (the thesis option) or in lieu thereof; (b) six semester hours of graduate work involving a case study, an in-service project, an original creative work, specified research courses, or such other effort as the academic unit may designate (the non-thesis option). (2) At least twenty-four of these hours, including the thesis or non-thesis option, must be completed in residence at The American University.

Doctoral Degrees (1) For students admitted to graduate work at The American University without a previously earned master's degree, the requirement is seventy-two semester hours of graduate work which will include no less than twelve and no more than twenty-four hours of directed study on the dissertation. In any case, at least forty-two of these hours, including the research requirement,

must be completed in residence at The American University. (Course credit earned towards a master's degree at The American University may, if relevant, be counted towards the Ph.D. degree.)

(2) For students admitted with a master's degree earned elsewhere, the requirement is at least forty-two hours of additional graduate work, of which thirty-six hours, including the research requirement, must be completed in residence at The American University.

(3) Once a student has been admitted to graduate study toward a degree he must obtain prior permission from his dean or department chairman in order to take graduate work at another institution which will count towards his degree objective at The American University. Otherwise, such work will not be counted toward a degree at The American University. Such work also may conflict with residence requirements.

ACADEMIC LOAD The normal load of full-time graduate study is nine to twelve hours per session; however, a particular academic unit may declare circumstances under which full-time involvement in thesis or dissertation research constitutes full-time standing.

In the Summer Sessions, because of the combination of five-week and seven-week sessions, there are various possibilities of full-time status. Normally, six semester hours during any five-week session is considered full-time. Students are referred to the *Summer Schedule of Classes* for current definitions of full-time status during the Summer.

PREREQUISITE UNDERGRADUATE CREDIT Credit earned in undergraduate courses taken as required prerequisites for other courses by graduate students may not be counted toward satisfying the total credit requirement for a graduate degree and grades earned in them are not used in calculating the student's grade point average.

TOOLS OF RESEARCH Each academic unit specifies the tool of research requirement(s) in each case. Tools should relate to research in the discipline in which the student is studying. The student's satisfaction of tool requirements is certified by the academic unit, which may sub-contract the job or do it itself.

EXAMINATION PROCEDURES

Examination Timetable For both master's and doctoral degree students, the dean or department chairman (or designated representative) determines the time and eligibility for taking the examinations.

Application to take comprehensive examinations is made to the academic unit on a standard form available from that office. After approval is obtained, the student pays the appropriate fee at the Office of Student Accounts. In most cases, students should plan to apply during the first week of classes of the semester in which they plan to take the examinations.

Examination Fields Although proposed fields for comprehensive examinations may have been planned early in the graduate student's academic career, it is possible to change the fields up until the time the student actually submits the application for admission to the comprehensive examinations. Each college, school, or department offers its current list of standard comprehensive examination fields, including certain "core" fields and areas in which candidates in particular degree programs must present themselves for examination. (A list of these fields is presented in the respective sections of this publication.) A student may choose from the list (including the required core) the ones which are appropriate to his own interests and objectives.

In some disciplines, it is possible to choose a field outside the major area of interest. In choosing such a field, however, the candidate is required to choose one which is available at the time of his application to the comprehensive examinations.

Examination Grading Normally, each comprehensive examination written by a candidate is read by two readers and is rated distinction, satisfactory, or unsatisfactory by each reader. In order to pass the examinations the candidate must obtain at least satisfactory from both readers in each of the fields in which he was examined. In the event of a disagreement in the ratings between readers as to whether or not the candidate should pass, a third reader is appointed to break the deadlock.

Examination Grading Variations Each individual dean or department chairman may elect to determine a different system of grading comprehensive examinations for his own candidates. Consult the specific college, school, or department of your major interest to ascertain what system is used. The system described above is the traditional one in use throughout most of the University.

EXAMINATION REQUIREMENTS

Master's Degrees (1) At least one comprehensive examination, the nature and scope of which is determined by the academic unit, will be required. (2) An oral examination on the thesis may be required by the academic unit.

Doctoral Degrees (1) A qualifying examination must be taken before completion of twenty-four semester hours of course work in a doctoral program at The American University.

(2) At least four comprehensive examinations will be required, at least one of which will be an oral examination. At least two comprehensive examinations must be written and must be taken within one year following the completion of the residence requirements. The qualifying examination and/or master's comprehensive examination, if taken at The American University, may be credited at the discretion of the academic unit toward meeting the comprehensive requirements for a doctoral degree. Comprehensive examinations given by other institutions will not be credited towards the satisfaction of degree requirements.

(3) An oral examination on the dissertation is also required.

Re-examination (1) Qualifying Examination: A student failing the qualifying examination (or its formal equivalent as defined by the academic unit) may be permitted one retake by his academic unit. If permission for the retake is denied, the student may appeal to the Committee on Graduate Studies.

(2) Comprehensive Examinations: A student who fails a comprehensive examination (other than a qualifying examination) may be permitted additional attempts within two years. The nature and extent of the examination to be retaken and the number of retakes to be allowed will be determined by the academic unit.

(3) Thesis and Dissertation Oral Examinations: In the event of failure to complete the oral examination satisfactorily, the academic unit may, at its discretion, permit one retake.

THESES AND DISSERTATIONS

Thesis and Non-Thesis Options For master's candidates the thesis is expected to demonstrate the student's capacity to carry on original and independent research. Some colleges, schools, and departments of the University offer the opportunity to substitute a case study, an in-service project, an original creative work, or specific advanced research courses, in lieu of a thesis for the master's degree. In every such case, the thesis seminar or other accepted alternative must be considered part of the residence requirement for the master's degree and must meet the standards set forth by the individual colleges, schools, and departments as well as those of the University.

No academic credit is given for the master's thesis unless the student registers for the thesis seminar. However, he should not enroll for this seminar before he is ready to start work on his formal thesis proposal or the thesis itself.

Traditionally, an advisory committee is appointed for each candidate working on a thesis. The committee may be composed of no fewer than two members, at least one of whom must be a member of the full-time faculty. An oral examination by this committee is often required. Suggestions for revision may be made as conditions to be met before members will sign the title page of the thesis. If the chairman of the thesis committee or the department chairman certifies failure to complete a satisfactory thesis, the student may be dismissed from the University.

A student who writes a thesis must adhere to the required form and content for the proposal and to the other procedures described in detail in the published guides which may be received from the office of the dean of his college or school.

Students electing the non-thesis option should obtain specific departmental requirements from their teaching units. The University minimum requirement is two research-oriented courses at the xx.600 or xx.700 level. Only grades of A or B in these courses will satisfy the non-thesis option.

Dissertation Capping the requirements for achieving the doctorate is the dissertation, together with the required oral examination of the dissertation by the student's teaching unit. Normally, the candidate must have completed all other academic requirements for the degree before the oral examination can be held.

When a candidate is declared ready to proceed to the dissertation he must submit a dissertation topic proposal reporting the results of his preliminary research. This proposal is expected to contain, among other things, a concise statement of the major problem of research and of related supporting problems, the data to be used, a selected bibliography, a statement of the probable value or

importance of the study, a brief description of the methods to be used, and a preliminary outline of the dissertation in some detail.

After approval of the proposal by the candidate's advisor, it is presented to the dean of his college or school for final approval. Acceptance of the proposal indicates that the topic is a suitable one and that the dissertation will be accepted if developed adequately by the candidate. Acceptance of a dissertation topic proposal under no circumstances commits any department or school or the University to acceptance of the dissertation itself. The University will take responsibility for directing research only in fields and problem areas which its faculty members feel competent to handle.

A dissertation advisory committee of three to five persons is normally appointed by the candidate's academic dean for each candidate undertaking a dissertation. After the draft manuscript has received the tentative approval of all members of the committee, the committee chairman arranges for the oral examination. This covers the dissertation itself and the general field in which it lies. All members must agree that the candidate has passed the oral examination. Conditions to be met before final acceptance of the dissertation may be specified without necessarily holding a second oral examination.

If the chairman of the dissertation committee or the department chairman certifies failure to complete a satisfactory dissertation, the student is automatically dismissed from the University.

Final Manuscript Regulations concerning the form and preparation of the final manuscript, abstract, copyright, and so forth may be obtained from the dean or department chairman offering the doctorate. Certain deadline dates are found in the *Schedule of Classes* published for each academic term, and must be met if a candidate expects to receive his degree at the following May commencement.

Filing of Thesis or Dissertation Upon completion of the final manuscript, a student obtains the signature of the department chairman and dean on the Thesis/Dissertation Completion form, takes the form and the manuscript to the Office of Student Accounts to pay the appropriate fee (master's thesis \$25; doctoral dissertation \$35), to the Office of the Registrar for certification of the completion of degree requirements, and then to the Library for the filing of the manuscript. This procedure is to be followed after all course work has been completed.

Publication It is the policy of the University to encourage publication of dissertations, case studies, and theses, with acknowledgment to the University. In the event substantial alterations are made before publication, this fact must be noted in the prefacing statement which gives acknowledgment.

ABD (ALL-BUT-DISSERTATION) STATUS Students who enter a doctoral program without a master's degree may be awarded the appropriate master's degree from The American University in the field in which their doctoral work was done upon completion of all requirements for the doctorate except the dissertation.

MAINTAINING MATRICULATION, REQUIRED GRADUATE STUDENT REGISTRATION The University requires *students who have been admitted to graduate degree programs* to register each year for the entire academic year (Fall semester to Fall semester) until they complete their entire program. Accordingly, those who do not enroll in any courses or research seminars during the Fall semester must register in the Fall of each year under the course number designation xx.099 *Maintaining Matriculation* (no credit) and pay the required non-refundable fee. A subsequent Spring and Summer registration does not invalidate the necessity for registering in the Fall semester. The current fee is \$55. Graduate students are not eligible for a Leave of Absence, except for reason of military or government assignment.

A student in this category is entitled to use the library of the University and to consult with members of the faculty. A graduate student who does not so register, indicating his continued interest in completing his degree objective, may be subject to delay in his work or may be denied the right to continue his studies.

A student who registers in the Fall for comprehensive examinations is considered to be registered for that academic year and does not need to register for the xx.099 *Maintaining Matriculation*. His only fee is his comprehensive examination fee. However, he should process a registration form with the course number designation xx.098 to indicate his continued active status on his permanent academic record. Course number xx.098 carries no fee.

STATUTE OF LIMITATIONS

Master's Degrees All work done for the master's degree must be completed within three years from the date of first enrollment in a graduate degree program.

Doctoral Degrees All work for the doctorate must be completed within five years from the date of first enrollment as a doctoral student (seven years if the student entered a doctoral program directly from a bachelor's degree).

Extension of Candidacy and Re-admission A graduate student may petition for an extension of candidacy in a degree program for a limited period if such extension is sought prior to the expiration of these specified time limits. If, however, the time limit has expired, a student wishing to resume his work may seek re-admission to the University once for a limited period. Re-admission to candidacy for advanced degrees may involve the completion of additional courses or other appropriate work.

General Information

STUDENT RESPONSIBILITY The student is responsible for his behavior, academic and otherwise, at The American University. The American University expects that each student, as a mature member of the academic community, will adhere to the highest standards of personal integrity and good taste in his conduct and in his relationships with others.

To protect his academic status, a student should seek the appropriate approval of his academic program advisor. It is highly recommended that students keep their own internal records of all transactions with the University (grade reports, registration schedules and changes, incomplete forms, etc.). It is also advisable to keep copies of all tests and papers submitted in fulfillment of course work.

UNIVERSITY LIABILITY Faculty, students, staff, and guests are responsible for their personal property, clothing, and possessions. The University does not carry any insurance to cover losses of such articles nor does it assume any responsibility whatever therefor.

ACADEMIC CALENDAR At the present time the academic year is divided into the Fall and Spring semesters (of approximately fifteen weeks each) and a Summer term (also of approximately fifteen weeks) comprised of three five week sessions and two seven week sessions.

Final examinations, when given, are scheduled in the last class meeting of the academic term. The decision to give final examinations is left to the discretion of the college, school, department, or individual instructor offering the course.

The holidays and vacations usually observed by the University are as follows: Thanksgiving Weekend (Thursday, Friday, Saturday); Christmas and New Year's Day (included in the mid-semester break); Inauguration Day (every four years); Washington's Birthday; Memorial Day; Independence Day; and Labor Day. Classes continue until 11:00 pm in the evening before a holiday or a vacation period.

The official calendar for each academic term is published in detail in the *Schedule of Classes* for that term. Faculty members and students should check this source for final information about the current academic calendar. The University reserves the right to change any published calendar, including that in the *Schedule of Classes*, because of emergencies beyond its control. Information about last minute changes will be distributed as widely as possible, especially through the local news media.

The Washington College of Law traditionally follows a calendar which differs somewhat from that of the rest of the University.

MOTOR VEHICLES Freshman, sophomore, and junior students who reside on the campus are not allowed to bring motor vehicles which require licensing to The American University. Seniors and non-resident students who are allowed to bring motor vehicles to the campus must register them at the Office of Security, Room 3, McKinley Building, display a valid parking permit, and observe the University's parking and speed limit regulations.

Colleges, Schools, and Departments: Degree Programs and Courses of Instruction

Summary of Degree Major Programs

College of Arts and Sciences

ASSOCIATE IN ARTS

General Studies

BACHELOR OF ARTS

American Studies

Anthropology

Art

Art History

Biology

Communication

Design

Economics

Elementary and Early Childhood Education

Environmental Studies (second major)

Foreign Language and Communication Media

French Studies

German Studies

History

Interdisciplinary Studies

Jewish Studies

Language and Area Studies

Law, Public Policy and Society (Interdisciplinary)

Literature

Mass Communication and Society (Interdisciplinary)

Music

Performing Arts

Philosophy

Physical Education

Physics

Psychology

Religion

Russian Studies
 Secondary Education (second major)
 Sociology
 Spanish Studies
 Special Education (second major)

BACHELOR OF FINE ARTS

BACHELOR OF MUSIC

BACHELOR OF MUSIC EDUCATION

BACHELOR OF SCIENCE

Applied Mathematics
 Art Education
 Biology
 Chemistry
 Computer Science
 Distributed Science
 History
 Interdisciplinary Studies
 Mathematics
 Medical Technology
 Microbiology
 Performing Arts
 Physical Education
 Physics
 Sociology
 Statistics

MASTER OF ARTS

Anthropology
 Applied Anthropology
 Applied Economics
 Art History
 Clinical Psychology
 Communication: Media Studies
 Communication: Public Affairs Journalism
 Communication: Public Communication
 Economics
 Education
 Experimental and Social Psychology
 Foreign Language and Communication Media
 French Studies
 German Studies
 History
 History of Religions
 Interdisciplinary in Film
 Interdisciplinary Studies
 Linguistics
 Literature
 Mathematics
 Music
 Music Education
 Performing Arts
 Philosophy
 Religious Studies
 Russian Studies
 Sociology
 Spanish Studies
 Statistics

MASTER OF EDUCATION

Counseling
 Educational Administration and Supervision
 Generalist

Physical Education
 Science Education
 Secondary Education
 Special Education: Emotionally Disturbed
 Special Education: Learning Disabilities
 Special Education: Reading Education
 Student Development in Higher Education

MASTER OF FINE ARTS

Painting
 Sculpture

MASTER OF SCIENCE

Biology
 Chemistry
 Computer Science
 Physics

MASTER OF SCIENCE IN SCIENCE TEACHING DOCTOR OF EDUCATION

Counseling Psychology
 Educational Administration and Supervision
 Higher Education
 Mathematics Education
 Science Education
 Special Education

DOCTOR OF PHILOSOPHY

Anthropology
 Chemistry
 Clinical Psychology
 Counseling Psychology
 Economics
 Educational Administration and Supervision
 Experimental and Social Psychology
 Higher Education
 History
 Literary Studies
 Mathematics
 Mathematics Education
 Philosophy
 Physics
 Science Education
 Sociology
 Special Education
 Statistics

School of Business Administration

BACHELOR OF SCIENCE IN BUSINESS ADMINISTRATION

Accounting
 Business Economics (Interdisciplinary)
 Computer Systems (Interdisciplinary)
 Finance
 Interdisciplinary Studies
 Marketing
 Personnel
 Urban Development

MASTER OF BUSINESS ADMINISTRATION

Accounting
 Business-Government Relations
 Employee Relations

Finance
 International Business
 Managerial Economics
 Marketing
 Operations Analysis
 Real Estate
 Transportation

MASTER OF SCIENCE

Business-Government Relations
 Employee Relations Management
 Real Estate and Urban Development Planning

College of Continuing Education

ASSOCIATE IN GENERAL STUDIES
BACHELOR OF SCIENCE IN GENERAL STUDIES

Social Science

MASTER OF SCIENCE IN PUBLIC RELATIONS

School of Nursing

BACHELOR OF SCIENCE

Nursing

College of Public Affairs

CENTER FOR THE ADMINISTRATION OF JUSTICE

ASSOCIATE IN ADMINISTRATION OF JUSTICE
BACHELOR OF SCIENCE IN ADMINISTRATION OF JUSTICE
MASTER OF SCIENCE IN ADMINISTRATION OF JUSTICE
BACHELOR OF SCIENCE

Interdisciplinary Studies

SCHOOL OF GOVERNMENT AND PUBLIC ADMINISTRATION

BACHELOR OF ARTS

Interdisciplinary Studies
 Political Science
 Urban Affairs

BACHELOR OF SCIENCE

Interdisciplinary Studies
 Political Science
 Urban Affairs

MASTER OF ARTS IN POLITICAL SCIENCE
MASTER OF PUBLIC ADMINISTRATION
DOCTOR OF PHILOSOPHY

Political Science
 Public Administration

SCHOOL OF INTERNATIONAL SERVICE

BACHELOR OF ARTS

Interdisciplinary Studies
 International Studies
 Language and Area Studies

MASTER OF ARTS

International Communication
 International Studies

DOCTOR OF PHILOSOPHY

International Studies

CENTER FOR TECHNOLOGY AND ADMINISTRATION

BACHELOR OF ARTS

Interdisciplinary Studies

BACHELOR OF SCIENCE IN TECHNOLOGY OF MANAGEMENT

MASTER OF ARTS

Interdisciplinary Studies

MASTER OF SCIENCE IN TECHNOLOGY OF MANAGEMENT

Washington College of Law

JURIS DOCTOR



College of Arts and Sciences

DEAN Richard Berendzen

Associate Dean, Undergraduate Studies Ruth E. McFeeter

Associate Dean, Graduate Studies Thomas B. Owen

Assistant Dean Donald G. Triezenberg

Assistant Dean Robert L. Norris

Academic Counselor Carl E. Cook

Academic Counselor Ruth E. Early

Academic Counselor Dorothy A. Owens

The COLLEGE OF ARTS AND SCIENCES is committed to the personal intellectual growth of its students through a liberal and liberating education in the arts and sciences. The College challenges its students to assume substantial responsibility in programming their individual education, yet provides them with careful, professional guidance in responding to this challenge.

The College of Arts and Sciences offers educational breadth and depth. Its Liberal Studies Program gives students an opportunity to sample the broad spectrum of human knowledge. Its disciplinary and interdisciplinary degree programs provide opportunities for intensive study in the arts, humanities, natural sciences, and social sciences and also in the professional fields of education and communication.

The College of Arts and Sciences draws upon the educational resources of Washington, D.C.—social, cultural, artistic, humanistic, and scientific—to bring a unique dimension to the universal body of human knowledge. The city provides a wealth of distinguished visiting lecturers and an array of educational resources. The John F. Kennedy Center for the Performing Arts, the Library of Congress, the Smithsonian Institution, the National Academy of Sciences, the National Aeronautics and Space Administration, the National Archives, the World Bank, and foreign embassies are but a few examples of the educational resources of the nation's capital. These resources are utilized in a multitude of ways: through off-campus classes, site visits, research projects, internships, cooperative education programs, and courses specifically on the city and its institutions.

The College emphasizes high quality instruction on all academic levels. This emphasis is manifest in the College's distinguished teaching faculty. The College also nurtures creativity, scholarship, and research by faculty and students because it believes that authentic education requires an atmosphere of active, original inquiry. Thus, the College of Arts and Sciences offers the student, whether a freshman or an advanced graduate scholar, an opportunity for full intellectual growth.

FACULTY The College of Arts and Sciences has a unique teacher-scholar faculty of 263 full-time professors and 234 adjunct professors. Experts in their own fields, they have included ambassadors,

advisors to presidents, world renowned performers, national press figures, distinguished scientists, recognized artists and composers, pioneers in special education and learning theories, and consultants to major organizations, corporations, and even nations. Each year the College employs professors from other United States institutions and from foreign countries, as well as artists in residence.

For full-time faculty, see faculty listings with each departmental section that follows.

Undergraduate Study

LIBERAL STUDIES PROGRAM The undergraduate curriculum of the College of Arts and Sciences serves many purposes. One purpose is to provide students with an in-depth education in their major field of study. To do this, each department in the College offers an array of courses arranged to form a coherent program of study for its majors. This program typically constitutes from one third to two thirds of an undergraduate's total course work. A second purpose of the College curriculum is to provide students with a liberal education. This is done by encouraging students to choose their elective courses from among the course offerings of a wide range of departments.

As of Fall, 1975, the College of Arts and Sciences is adding an important new component to its curriculum, the Liberal Studies Program. This program is designed to enhance the departmental offerings in the liberal arts for the *non-major*, recognizing the need for a liberal arts component in a college education, no matter what the student's area of specialization. Liberal Studies courses are taught by outstanding professors, nominated by their departments for their teaching effectiveness and their broad scholarly knowledge as particularly well-qualified to inculcate the essence of a discipline to the non-major. The program recognizes and honors the best the College has to offer in liberal arts education.

Students throughout the University should find courses in the Liberal Studies Program appropriate in their academic planning, in exploring new fields, and in choosing electives. Since the content of Liberal Studies courses is designed for the non-major, the emphasis in these courses is quite different from the standard introductory course designed to teach the prospective major the basic tenets of the academic discipline.

Courses in the Liberal Studies Program are organized according to the three broad areas of human knowledge: arts and humanities, natural sciences, and social sciences. Undergraduates who first register as College of Arts and Sciences students for or after the Spring semester, 1976, will be required to complete the following number and range of Liberal Studies courses as a requirement for a bachelor's degree: (1) three Liberal Studies courses, one from each area, for students entering with zero to eight course units; (2) two Liberal Studies courses, one from each area other than the area of the student's major, for students entering the college with eight to sixteen course units; (3) one Liberal Studies course from an area other than the area of the student's major for students entering the college with from sixteen to twenty-four course units; (4) no Liberal Studies requirement for students entering the college with twenty-four or more course units or with an Associate of Arts degree.

This requirement does not apply to students majoring in elementary education since the elementary education program has its own extensive general education requirement.

For specific Liberal Studies courses, see the separate Liberal Studies section in this publication.

ASSOCIATE IN ARTS DEGREE Some high school graduates do not, or for some reason cannot, remain in college for four years, yet desire to complete a degree program. This fact, along with the development of the junior college, has contributed to the popularity of the Associate in Arts degree which may be awarded after successful completion of two years' study or its equivalent. The college offers the Associate in Arts degree in general studies only.

To receive the associate degree the student must fulfill the University English requirement, satisfy the high school language requirement, and accrue a total of sixteen courses with a cumulative average of C or better.

ACADEMIC COUNSELING The College of Arts and Sciences undergraduate is responsible for contacting his faculty advisor to plan each semester's program according to his interests, vocational plans, and academic maturity. A first-semester freshman is counseled by curriculum and registration materials mailed during the summer months. His response to this information provides the basis of his first semester's course work. During freshman orientation, immediately prior to the beginning of the fall semester, the entering student meets with his assigned faculty advisor to discuss his

academic program. Normally, this advisor counsels the student until he formally declares a major, at which time he selects or is assigned a faculty advisor in his major department. The transfer student is directed to the department of his intended major for the purpose of academic advisement.

The student is encouraged to seek additional assistance, if necessary, from the academic deans and counselors of the College of Arts and Sciences. Appointments are made through the receptionist, Gray Hall, (202) 686-2440.

DEGREE REQUIREMENTS The minimum requirement for all bachelor's degrees is thirty-two course units.

The student is urged to build his program on a broad liberal arts base, seeking understanding in many academic disciplines. To earn the bachelor's degree, the student must fulfill the University English requirement (see "Undergraduate Degree Requirements" in this publication) and complete the college's Liberal Studies requirement (for students entering the college after Spring 1976 and thereafter; see Liberal Studies section in this publication). The student must also satisfy the requirements, related fields, and tool subjects in his major as specified by his department or approved as a valid interdisciplinary program. Major programs and interdisciplinary studies are described under departmental sections of the college.

FOREIGN LANGUAGE Completion of the Intermediate II college level of a foreign language is no longer required for the bachelor's degree. However, the College of Arts and Sciences encourages students to gain proficiency in at least one foreign language.

It is natural for students embarking on a career in international relations, a study of the humanities, specialization in minority groups in the United States, and those with many other interests to concentrate on language study. Graduate study will often require proficiency in at least one foreign language. At the doctoral level a second foreign language may be required.

MAJORS By the end of the sophomore year, if not before, the student is expected to declare a field of concentration, an academic major. It is in this field that he pursues study in depth and synthesizes his academic knowledge. Major programs are described under departmental sections of the College. A student should become familiar with departmental requirements and regulations as stated in this publication and in departmental requirement check sheets.

Students interested in the natural sciences, mathematics, music, art, and physical education need to take specific courses in their freshman year if they intend to complete a degree in eight semesters. Such students should declare their interest as soon as possible and seek explicit counseling from the appropriate department.

Admission to the University does not automatically constitute admission to a major program. The student must process a formal declaration of major on a form designed for this purpose, and available in the departmental office. With this declaration form, he requests an unofficial copy of his permanent record from the Office of the Registrar for course work at The American University. A student presents his academic credentials (permanent record and transcript evaluation, if applicable) to the department chairman for acceptance.

When the student is accepted as a major, he should select or ask to be assigned a major academic advisor who will supervise his studies until graduation.

Students who wish to change their majors from one department to another within the college must follow the same procedure, being accepted by the chairman of the new department. Students desiring to change from another school to the College of Arts and Sciences must apply through the dean's office.

INTERDISCIPLINARY MAJOR This program permits College of Arts and Sciences undergraduate students to complete an interdisciplinary major according to their needs, capacities, and interests. A program is formulated with the advice and approval by at least three full-time faculty members from disciplines relevant to the student's defined emphasis, and is subject to the review of the University Senate Interdisciplinary Studies Committee and the approval of the dean.

The initiative in all such degrees is with the student. It is the student who is responsible for determining the central concept around which the program is to center. With the three faculty members, he determines the requirements of his concentration and identifies a sequence of course work to fulfill his program needs. The concept should be formulated in a written statement no later than the first semester of the junior year. An interdisciplinary major also can be taken as a second major.

The University Interdisciplinary Studies Committee sets all requirements and procedures for this program. Interested students should study the Interdisciplinary Studies section in this publication and consult the Coordinator of Interdisciplinary Studies for assistance.

PRE-PROFESSIONAL PROGRAMS Pre-professional curricula are offered in dentistry, medicine, law, physical therapy, medical technology, engineering, social work, secondary education, and theology. A student interested in one of these fields should consult the associate dean for academic counseling and for the assignment of an advisor representing the special field of interest. See also the Pre-Professional section in this publication.

CONSORTIUM OF UNIVERSITIES For a description of the Consortium of Universities of the Washington Metropolitan Area, see "General Academic Information and Regulations" in this publication. Through this consortium, a student in the College of Arts and Sciences has access to services offered by more than 5,000 faculty members, some 15,000 courses, and greatly expanded library facilities.

THE AMERICAN UNIVERSITY ACADEMY FOR THE PERFORMING ARTS The American University Academy for the Performing Arts offers two intensive four week sessions (for credit) in the summer. Taught by professional companies from all over the world, the program has as its focus high quality professional training and performing opportunities for high school and college artists in symphony, orchestra, chorus, chamber music, wind ensemble, dance, and theatre. Approximately 800 students from around the world study, rehearse, and intermingle with individual artists in summer residence at the University. See the Performing Arts Academy section in this publication.

MARINE SCIENCE CONSORTIUM The American University is a member of the Marine Science Consortium composed of seventeen colleges and universities. During the summer, the consortium offers course, laboratory, and field work at two stations: Wallops Island, Virginia (near Chincoteague) and Lewes, Delaware, on the Atlantic seaboard. The stations have exceptionally fine facilities, including a fleet of fifteen vessels (the largest is the ninety-two foot Annandale). The curriculum includes a wide variety of environmental courses such as wetland wildlife, ichthyology, and ornithology. See the Marine Science section in this publication.

LIVING-LEARNING CENTER Traditionally, classrooms have been for learning and dormitories have been for living. The Living-Learning Center, sponsored by the College and located in Anderson Hall, integrates these two experiences into an enriched educational program.

Courses in the Living-Learning Center are designed for flexibility and individual attention. The small classes in the center, and the informal atmosphere of the dormitory encourage group interaction and a close relationship between students and faculty. Study facilities in the center provide participants with a convenient and comfortable place to study and meet friends.

The Living-Learning Center is open to freshmen and sophomores who live in Anderson Hall in an area designated only for students of the center. A student in the center takes two courses offered by the center and selects two other courses from those offered by the college departments or other schools to complete his semester program. Living-Learning Center courses are listed in each semester's *Schedule of Classes*.

FIRST YEAR MODULE PROGRAM IN HUMAN COMMUNICATION Man's need to communicate and the manner in which this is accomplished are the underlying themes for the First Year Module in Human Communication. Students interested in the many facets and processes of human communication—from literature to language structure, theatre to ideology and values—will want to consider participating in this program. Designed especially for College of Arts and Sciences freshmen, this program of study is the result of coordinated efforts of several departments offering courses which have communication-related themes. In addition to a module seminar, students who participate take Composition and Reading (a University requirement) and two other courses designated by the module committee.

Students and professors teaching the module courses participate in an interdisciplinary seminar where the ideas are synthesized into a multidisciplinary perspective through collective comment and small group discussion, guest lectures, and field trips.

INTERNSHIPS A variety of internship programs, which engage the student in practical experience in its most intimate terms, supports learning. The growing number of intern programs in the College is a convincing testament not only to their popularity, but also to their success.

American University interns work in numerous social agencies in the Washington area. Through Community Improvement through Youth (CITY), students arrange field experiences and meet weekly to evaluate what they have learned and what they have taught. Interns teach in schools, coffee

houses, mental hospitals, even private homes. Others work with the National Children's Center, the Rape Crisis Center, and the Jessup House of Correction. Under a program sponsored by the National Institute of Mental Health, psychology majors counsel and teach in such places as the Psychiatric Institute, Runaway House, and Lorton Reformatory. Communication interns spend twelve hours a week in on-the-job training. (See also the section on Cooperative Education in this publication.)

INDEPENDENT STUDY Independent reading courses and study projects are common options among College of Arts and Sciences students. Such enrollments allow a student to read a body of material under attentive non-traditional supervision; engage in independent research projects; participate in educational programs off-campus; and explore as far as his interests and preparation carry him. (See "General Curriculum Information" in this publication.)

STUDY ABROAD The College of Arts and Sciences regularly sponsors study abroad programs. Typical summer opportunities have included: The Greek Experience; Open Classroom for American Educators in Exeter, England; International Communication Workshop in London; Comparative Media Studies in London; Research in International and Inter-Cultural Communication in London; Spanish Studies Institute in Spain; French and Interdisciplinary Studies in Europe; History of London in London; and Summer Institute in Israel. For further information, contact the Office of Summer and Special Sessions.

UNDERGRADUATE HONORS PROGRAMS The Department of Literature offers a limited number of honors English sections each Fall and Spring semester. Qualified students are selected by the department and the dean's office and receive written invitations to enroll.

Many departments offer exceptional students the opportunity to pursue honors work in the major. An interested upperclassman should consult his department faculty.

Graduate Study

The graduate programs of the College of Arts and Sciences are directed toward the development of highly competent scientists, sensitive teachers, creative and critical scholars. To achieve this objective the college provides an academic setting and climate favorable to the free interchange of ideas and the disciplined exploration and testing of the most seminal of these notions. The primary function of this collaborative interchange among mature and maturing scholars is to enhance the latter's understanding of, and sensitivity to, the spirit and styles of intellectual innovation and scholarly inquiry. The student is encouraged to identify research or intellectual problems of his own choosing and actively to seek their solution. These self-defined problems and the creative inquiry they generate are the ultimate influence for the fashioning of the individual student's program of graduate study in the college. See the specific program descriptions under the individual departmental sections of the college that immediately follow this section. Also, see "Graduate Degree Requirements" in this publication.

American Studies

DIRECTOR Kay Mussell

FULL-TIME FACULTY

Associate Professor C. McLaughlin

Assistant Professor K. Mussell

FIELDS OF STUDY Interdisciplinary program with course work in anthropology, art, Black studies, communications, economics, education, government, history, literature, music, performing arts, philosophy, public administration, religion, sociology, urban affairs, and women's studies.

Undergraduate Degree Program Bachelor of Arts

MAJOR IN AMERICAN STUDIES

The Bachelor of Arts in American Studies is granted by the College of Arts and Sciences. Inquiries about the program should be directed to the director of the American Studies Program.

ADMISSION TO THE MAJOR A student who has earned an average of 2.50 in two courses related to the major qualifies for admission. In consultation with the chairman, the student will submit a list of the courses he wishes to present for the major. He will also prepare a statement of the reasons for his choice of the sequence of courses he proposes to take. The overall program for an individual student should be so constructed that the courses chosen complement each other and form a coherent analysis of the aspects of American life in which he is most interested. The list of courses and the statement of purpose are subject to the approval of the American Studies Committee. The submission of the program to the committee should occur no later than the first semester of the junior year, although exceptions will be allowed by permission of the committee.

COMPOSITION AND READING REQUIREMENT See "Undergraduate Degree Requirements" in this publication.

LANGUAGE REQUIREMENT See opening section under "College of Arts and Sciences" in this publication.

MAJOR REQUIREMENTS Students have an opportunity to design their own preference into this major program within the framework of the following requirements. The total major requirement is fifteen course units.

(A) American Studies courses required of all majors: 02.200 The American Dream; 02.201 American Civilization: The Urban Technological Era; 02.400 Colloquium in American Studies; 02.401 Senior Seminar in American Studies. In addition one of the following courses: 02.301 Contemporary American Culture: The Literary Vision; 02.302 Religion in the American Environment; 02.303 American Decades; 02.304 The Popular Arts in America; 02.306 Washington, D.C.: The City and Its Institutions; 02.310 Major American Thinkers.

(B) A selection of four courses (from a single department or related departments) dealing with some aspect of American life.

(C) A selection of *three* courses (from another single department or related departments) also dealing with American life.

(D) A selection of *three* other courses which may be distributed over several departments. These courses may deal with another aspect of American life or they may be supplementary or tool courses designed to support the work in the two major fields of concentration.

Consult the chairman for the list of courses that may be used to satisfy the requirements (B), (C), and (D) above.

DEPARTMENTAL HONORS Students with a 3.00 average and a 3.25 average in their major courses may apply for honors work. During the senior year they will complete a major research and writing project under the direction of the chairman. Enrollment in the senior honors program (02.498 and 02.499) is in lieu of 02.401 Senior Seminar in American Studies.

ELECTIVES To complete a minimum of thirty-two course units.

Courses of Instruction

Undergraduate Courses

02.200 THE AMERICAN DREAM (c 01.00) Changing American experience. Tension between prestige of European past and promise of new world. Reflection of this tension in American life, thought, and art.

02.201 AMERICAN CIVILIZATION: THE URBAN-TECHNOLOGICAL ERA (c 01.00) Changing face of America. Impact of urbanization and technological change on American life in twentieth century. Discussion of selected issues and problems.

02.301 CONTEMPORARY AMERICAN CULTURE: THE LITERARY VISION (c 01.00) Analysis of American culture from perspective of imaginative writers and social critics. Exploration of relationship of literary forms to American cultural experience. *Prerequisite:* one course in U.S. history, American literature, or American studies.

02.302 RELIGION IN THE AMERICAN ENVIRONMENT (c 01.00) Interaction of religion and American culture, making use of historical, literary, and sociological data, theological material, and research in contemporary religious phenomena. *Prerequisite:* one course in U.S. history, American studies, or religious studies.

02.303 AMERICAN DECADES (c 01.00) Integrated study of a significant decade. Treatment of political and economic affairs, international relations, social change, literature, drama, music and fine and popular arts. *Prerequisite:* one course in U.S. history, American literature, or American studies.

02.304 THE POPULAR ARTS IN AMERICA (c 01.00) Identification of significant forms of popular culture, analysis of their content, assessment of their importance, evaluation of their quality, and judgment of their cultural impact. *Prerequisite:* one course in U.S. history, American literature, or American studies.

02.306 WASHINGTON, D.C.: THE CITY AND ITS INSTITUTIONS (c 01.00) For Washington Semester Program in American Studies. History and development of Washington, D.C. Planning of city and physical, architectural, neighborhood, and cultural changes. City now and in the future. Students responsible for own transportation arrangements: *Prerequisite:* permission of instructor.

02.310 MAJOR AMERICAN THINKERS (c 01.00) In-depth study of one or two significant and representative American thinkers. Students responsible for own transportation arrangements. Meets jointly with 02.610. *Prerequisite:* permission of instructor.

02.390 INDEPENDENT READING COURSE IN AMERICAN STUDIES (c 00.25 through 02.00)*

02.396 SELECTED TOPICS (Non-Recurring) (c 00.25 through 02.00)*

02.400 COLLOQUIUM IN AMERICAN STUDIES (c 01.00) Reading, reports, and discussion of a collection of major books and articles in American studies field. Required of all junior majors in American studies.

02.401 SENIOR SEMINAR IN AMERICAN STUDIES (c 01.00) Introduction to research materials and methods. Students prepare and present a research paper for criticism by the seminar. Required of all senior majors in American studies.

02.490 INDEPENDENT STUDY PROJECT IN AMERICAN STUDIES (c 00.25 through 02.00)*

02.491 INTERNSHIP IN AMERICAN STUDIES (c 00.25 through 02.00)

02.498 SENIOR HONORS IN AMERICAN STUDIES I (c 01.00) See director for details.

02.499 SENIOR HONORS IN AMERICAN STUDIES II (c 01.00) See director for details.

Graduate Courses

02.610 MAJOR AMERICAN THINKERS (s 03.00) In-depth study of one or two significant and representative American thinkers. Topics to be announced in *Schedule of Classes* each semester. Students responsible for own transportation arrangements. Course meets jointly with 02.310. *Prerequisite:* permission of instructor.

Anthropology

CHAIRMAN John J. Bodine

ACTING CHAIRMAN 1975–76 George L. Harris

FULL-TIME FACULTY

Professor J. J. Bodine, K. S. Halpern, G. L. Harris, R. H. Landman, C. W. McNett Jr., H. C. Moore, P. Nash, A. L. Vilakazi

Associate Professor G. L. Burkhart, W. L. Leap

Assistant Professor D. Rosch

FIELDS OF STUDY Anthropological method and theory, ethnology and social anthropology, ethnography, linguistics, archeology, ethnohistory, culture change, applied anthropology, field research at undergraduate and graduate levels.

* See description under "General Curriculum Information" in this publication.

Undergraduate Degree Programs

Bachelor of Arts

MAJOR IN ANTHROPOLOGY

ADMISSION TO THE MAJOR Formal admission to the major requires a 2.00 grade point average (on a 4.00 scale), better than a 2.00 grade point average in two anthropology courses, and approval by the departmental undergraduate studies director.

COMPOSITION AND READING REQUIREMENT See "Undergraduate Degree Requirements" in this publication.

LANGUAGE REQUIREMENT See opening section under "College of Arts and Sciences" in this publication.

MAJOR REQUIREMENTS

Introductory Courses 03.201 Cultural Anthropology; 03.202 Biocultural Evolution.

Courses at xx.300 Level or Above 03.331 Variation in Man; 03.334 Anthropological Archeology; 03.336 Social Structure; 03.337 Anthropology of Language; 03.534 Analytical Methods: Quantitative and Qualitative; 03.545 Theory in Anthropology; and a minimum of four courses chosen from at least three of the following groups:

(A) Area Oriented: 03.332 Old World Prehistory; 03.333 New World Prehistory; 03.335 Cultures of the World; 03.531 Archeology; 03.536 Linguistics: Language and Area Profiles; 03.539 Ethnology.

(B) Method Oriented: 03.434 Anthropology of Urban Life; 03.543 Analytical Methods; 03.550 Field Methods.

(C) Policy Oriented: 03.537 Language and Culture (when so focused); 03.544 Applied Anthropology.

(D) Systemically Oriented: 03.430 Religion in Culture; 03.431 Culture and Personality; 03.433 Anthropology of Art; 03.532 Culture Change; 03.537 Language and Culture; 03.538 Systemic Analysis.

DEPARTMENTAL HONORS For students writing a superior senior thesis. Consult department advisor for details.

ELECTIVES To complete a minimum of thirty-two courses.

INTERDISCIPLINARY PROGRAMS The department will arrange interdisciplinary programs for interested students.

Graduate Degree Programs

ADMISSION See "Admission to Graduate Study" in this publication.

MINIMUM STANDARDS Candidates for graduate degrees in all academic units must meet the requirements set forth in the University Minimum Standards for Graduate Studies. The requirements appearing below are those of this department and do not relieve degree candidates from compliance with the minimum standards.

Master of Arts

MAJOR IN ANTHROPOLOGY

COURSE REQUIREMENTS Minimum of thirty hours of approved graduate work including at least twelve hours on the xx.600 or xx.700 level, of which normally six hours is 03.797 Master's Thesis Seminar. Designated core courses in theory and method are mandatory in first year of graduate work.

COMBINED FIVE YEAR B.A. AND M.A. WORK Students who wish to complete the B.A. and M.A. in anthropology in five years, may expedite this plan by doing more than the required thirty-two course units before the completion of the last undergraduate semester. It is possible for students in this program to carry forward two graduate level courses in anthropology into graduate work, provided the minimum department requirements are also being met. Admission to M.A. work is handled in the normal manner, by formal application during the senior year.

COMPREHENSIVE EXAMINATION One examination in general anthropological theory and method.

OTHER REQUIREMENTS Thesis and oral defense of thesis. One language or other tool of research such as statistical or computer analysis is strongly recommended.

MAJOR IN APPLIED ANTHROPOLOGY

COURSE REQUIREMENTS Minimum of thirty hours of approved graduate work of which normally six hours is 03.797 Master's Thesis Seminar. Two core courses in general anthropology (03.731 Seminar: Problems in Anthropology) are required in addition to courses in applied anthropology and culture change.

COMPREHENSIVE EXAMINATION One examination stressing the relevance of general anthropology to applied work.

OTHER REQUIREMENTS Thesis and oral defense of thesis.

Doctor of Philosophy

MAJOR IN ANTHROPOLOGY

COURSE REQUIREMENTS See "Graduate Degree Requirements" in this publication.

Minimum of seventy-two hours of approved graduate work is required, including 03.799 Doctoral Dissertation Seminar (may be repeated for up to twenty-four hours). Students entering the Ph.D. program with M.A. degrees in anthropology earned elsewhere must complete thirty hours of course work in residence plus twelve hours of dissertation credit. Students registered at the University and completing the requirements of a master's degree except for the master's thesis may proceed to doctoral work if their performance is of enough distinction in the minds of the faculty to warrant such a decision.

COMPREHENSIVE EXAMINATIONS (1) The examination 03.006 on general knowledge of anthropology is required within twenty-four hours of graduate work for students who enter the Ph.D. program without an M.A. in anthropology. For students with an M.A. in anthropology from other institutions, this examination will be taken during the first year of graduate work.

(2) A minimum of four comprehensive examinations, including 03.006, one in a major field, and normally one in an approved elective subfield of specialization, and one in an approved area of concentration. At least one comprehensive examination must be an oral examination.

COMPREHENSIVE FIELDS Consult the department "Graduate Guide" for details.

Core Field 03.006 Anthropological Method and Theory.

Major Fields 03.016 Ethnological Methods; 03.017 Archeological Methods; 03.018 Linguistic Methods.

Specialty Examinations 03.020 Subfield of Specialization; 03.021 Area of Concentration; 03.022 Culture Analysis (for non-majors only).

OTHER REQUIREMENTS A dissertation and an oral defense thereof.

A working knowledge of two languages useful as tools in library or field research or both or an acceptable substitute for one language is required. Statistical or computer analysis would provide such a substitute. Choice is to be evaluated and approved by the department in terms of the nature of the student's research interests and the needs for a career in anthropology. Admission to candidacy for the Ph.D. degree is contingent upon a passing performance on four comprehensive examinations and fulfillment of the tool requirements specified above.

GRADUATE DEGREES IN MORE THAN ONE DISCIPLINE The department will make arrangements for interdisciplinary study; students must submit a specific program for prior approval and take at least one comprehensive in this department.

Courses of Instruction

Undergraduate Courses

03.201 CULTURAL ANTHROPOLOGY (c 01.00) Concepts and theories drawn from the comparative analysis of cultures which are used by anthropologists to understand human behavior.

03.202 BIOCULTURAL EVOLUTION (c 01.00) Interrelationships between biological and cultural factors in the origin and development of man. Primate studies. Prehistoric man and his cultures. Contemporary human variability.

03.331 VARIATION IN MAN (c 01.00) Variation in man by race, age, developmental stages, and sex. *Prerequisite:* 03.202.

03.332 OLD WORLD PREHISTORY (c 01.00) Cultural development of man in Europe, Africa, and Asia from his earliest cultural beginnings through early metal ages.

03.333 NEW WORLD PREHISTORY (c 01.00) Prehistory and rise of civilizations of North and South American continents from arrival of the Indian to time of European contact.

03.334 ANTHROPOLOGICAL ARCHEOLOGY (c 01.00) Aims, methods and theory of archeology as subdiscipline of anthropology. Consideration of archeological evidence, data acquisition, dating, technical-typological analysis and interpretative frameworks. *Prerequisite:* 03.202.

03.335 CULTURES OF THE WORLD (c 01.00) Introduction to and comparison of culture areas of world; representative societies studied to examine role of economic, social, political, and religious systems at various levels of complexity. Elective option for Urban Affairs major.

03.336 SOCIAL STRUCTURE (c 01.00) Principles of organization of persons into kinship, political, ritual, and other groups. Analysis of rights and duties of persons according to institutional context. Relation of central cultural concepts to varieties of social organization. *Prerequisite:* 03.201. Elective option for Urban Affairs major.

03.337 ANTHROPOLOGY OF LANGUAGE (c 01.00) Language as a cultural phenomenon. Linguistic analysis as anthropological research. Structure of the speech community. Sapir-Whorf theory. Role of language in cultural maintenance and cultural change. Language dynamics. *Prerequisite:* 03.201.

03.430 RELIGION IN CULTURE (c 01.00) Anthropological study of religion, exclusive of great world religions. Religious belief and ritual; functions of religion; religion and culture change. *Prerequisite:* 03.201.

03.431 CULTURE AND PERSONALITY (c 01.00) Cultural determinants in personality formation. Anthropological studies of child development and "typical" personality. Relation of psychological dynamics to social and cultural systems. *Prerequisites:* 03.201 and one additional course in anthropology, or permission of instructor.

03.433 THE ANTHROPOLOGY OF ART (c 01.00) Visual and plastic arts and their symbolism and expression in cultures of Africa, Oceania, and New World. *Prerequisite:* 03.201 or permission of instructor.

03.434 ANTHROPOLOGY OF URBAN LIFE (c 01.00) Analysis of methods and results of studies of communities in complex societies, including American society, which is preparatory to a field research project near campus. Elective option for Urban Affairs major.

03.390 INDEPENDENT READING COURSE IN ANTHROPOLOGY (c 00.25 through 02.00)*

03.490 INDEPENDENT STUDY PROJECT IN ANTHROPOLOGY (c 00.25 through 02.00)*

03.498, 03.499 SENIOR HONORS IN ANTHROPOLOGY (c 02.00) Individualized study for exceptional students. Topics to be arranged with appropriate faculty. Open to seniors with grade index of at least 3.00 in the major and 3.00 in the cumulative index. Requires approval of department chairman.

Graduate and Advanced Undergraduate Courses

03.530 HUMAN EVOLUTION (s 03.00) Primate variation in form and behavior; early man in evolutionary and ecological perspective; fossil evidence; genetic, biological and cultural factors. *Prerequisite:* 03.331.

03.531 ARCHEOLOGY: TOPICS WILL BE ROTATED (s 03.00) Archeological analysis and interpretation. Theory and method applied to archeological data of a particular area and/or period of time. Regularly recurring courses include: Old World: Lower and Middle Paleolithic Ecology, Upper Paleolithic and Mesolithic Ecology, Archeology of South Asia, Archeology of South-West Asia; New World: Archeology of Meso-America, Archeology of the Eastern Woodlands. May repeat for credit

* See description under "General Curriculum Information" in this publication.

if no duplication. *Prerequisite:* 03.334, 03.332, 03.333 or permission of instructor. Where geographic area relevant, these courses constitute part of SIS area programs.

03.532 CULTURE CHANGE (s 03.00) Dynamics of culture. Stability, form, growth. Determinants of and barriers to change. Culture contact, acculturation and assimilation. *Prerequisites:* 03.201 and one additional course in cultural anthropology, or permission of instructor.

03.536 LANGUAGE AREA PROFILES (s 03.00) Analysis of a specific language area in terms of language distribution, structural variation, history and cross-interpretation with ethnological and archeological data, e.g. Amer-Indian, Malayo-Polynesian, Indo-Hittite groups. May repeat for credit if no duplication. *Prerequisites:* 03.337 and 03.537, or permission of instructor.

03.537 LANGUAGE AND CULTURE: TOPICS WILL BE ROTATED (s 03.00) Attention to specific aspects of the functioning of language within human behavior. Topics will include: ethnolinguistic analysis, sociolinguistic analysis, bilingualism, language and acculturation, problems in language planning.

03.538 SYSTEMIC ANALYSIS: TOPICS WILL BE ROTATED (s 03.00) Analysis of ethnographic data in terms of cultural and social systems. Successive semesters on: kinship, descent and marriage; politics and law; economics; symbolism in ritual and religion. May be repeated if there is no duplication. *Prerequisite:* 03.336 or permission.

03.539 ETHNOLOGY: TOPICS WILL BE ROTATED (s 03.00) Socio-cultural analysis focused upon geographical areas. Culture areas analyzed in terms of ethnographic, methodological, and theoretical literature. Regularly recurring courses include: China, Japan, East Asia, South Asia: Caste, North American Indians, Middle America, Traditional Africa, Modern Africa, West African Urbanization, Europe, East Central Europe. May repeat for credit if no duplication. *Prerequisites:* 03.335, 03.336, or permission of instructor. Where the geographic area is relevant, these courses constitute part of the SIS area programs. Europe is elective option for Urban Affairs major.

03.543 ANALYTICAL METHODS: TOPICS WILL BE ROTATED (s 03.00) Student practice in laboratory techniques and/or analysis of cultural materials. Stress on actual involvement in research. Methods presented in different semesters include: Quantitative and Qualitative Methods, Osteology, Paleoecology, Technology, Ethnohistory, Cultural Dynamics, Cross-Cultural Analysis, and Multivariate Computer Analysis. May be repeated for credit if no content duplication is involved. *Prerequisite:* permission of instructor.

03.544 APPLIED ANTHROPOLOGY: TOPICS WILL BE ROTATED (s 03.00) The uses of anthropology. Principles and practice directed toward problem solving in such fields as technological change; community self-determination; administration; health services; education systems; urban and ethnic affairs; poverty. Regularly recurring courses are: Principles of Applied Anthropology; Medical Anthropology; Anthropology and Education. *Prerequisite:* permission of instructor. Principles of Applied Anthropology and Medical Anthropology are elective options for Urban Affairs major.

03.545 THEORY IN ANTHROPOLOGY (s 03.00) History of the discipline, reviewing theory, method and approaches of anthropology in ethnology, archeology, physical anthropology, and linguistics. Outstanding theorists of the field. Open to anthropology students who are seniors or graduate students. *Prerequisites:* at least one course in each of above fields.

03.550 FIELD METHODS: TOPICS WILL BE ROTATED (s 03.00 through 06.00) Intensive training in ethnographic, linguistic, or archeological field methods. Ethnological utilization of subcultural resources of Washington area, or excavation in U.S. or abroad. Preparation of proposals, funding, sampling, data gathering and preliminary analysis of materials.

03.590 INDEPENDENT READING COURSE IN ANTHROPOLOGY (s 01.00 through 06.00)*

Graduate Courses

03.690 INDEPENDENT STUDY PROJECT IN ANTHROPOLOGY (s 01.00 through 06.00)*

03.700 SEMINAR: PSYCHOLOGICAL ANTHROPOLOGY (s 03.00)** Selected topics in psychological anthropology. Current theory and problems in the mutual relations of culture and personality; cognitive processes and functioning of cultural systems; relationships to cultural stability and change.

03.701 SEMINAR: CULTURAL DYNAMICS (s 03.00)** Evaluation of existing theories of change, their strengths and inadequacies. Attempted adumbration of new theory with contemporary significance.

* See description under "General Curriculum Information" in this publication.

** Permission of instructor required for all seminars. May repeat for credit if no duplication.

03.702 SEMINAR: URBAN ANTHROPOLOGY (s 03.00)** Anthropological approach to cultures of city. Analysis of cultural backgrounds of peoples moving to urban communities. Pathways of groups migrating into different levels of urban society. Subcultures of class and ethnic groups in urban environment.

03.703 SEMINAR: ANTHROPOLOGY OF DEVELOPMENT (s 03.00)** Study of directed social change. Programs in aid of education, agriculture, health, industrial and community development selected for student research, presentation, and discussion.

03.704 SEMINAR: SOCIAL ANTHROPOLOGY (s 03.00)** Focused conceptual frame for study of social relations of groups and categories of persons, of institutions and relations among institutions in simple and complex societies. Significance of focus for theory of stability and change.

03.705 SEMINAR: PROCESSUAL INTERPRETATION (s 03.00)** Consideration of archeology as anthropology. Contributions of archeological data to general anthropological theory, especially cultural process.

03.731 SEMINAR: PROBLEMS IN ANTHROPOLOGY (s 03.00)** Intensive analysis of selected theoretical and methodological problems in one or more fields of anthropology.

03.737 SEMINAR: TOPICS IN ANTHROPOLOGICAL LINGUISTICS (s 03.00)** Graduate level survey of the scope of linguistic science as it relates to anthropological method and theory.

03.797 MASTER'S THESIS SEMINAR (s 01.00 through 06.00)

03.799 DOCTORAL DISSERTATION SEMINAR (s 01.00 through 24.00)

Art

CHAIRMAN Robert A. D'Arista

FULL-TIME FACULTY

Professor S. Baker (Emeritus), R. A. D'Arista, R. Gates (Emeritus), H. M. Herzbrun, A. Keck (University Emeritus), B. L. Summerford

Associate Professor L. Brabanski, I. W. Eno, M. Garrard, M. Hirano, L. Penay, C. Ravenal, R. Shaffer, T. Turak, S. Pace,

Assistant Professor A. E. Feltus, M. Graham, N. Broude

Instructor L. B. Watkins

FIELDS OF STUDY Fine arts, design, art history, art education.

Undergraduate Degree Programs

Bachelor of Arts, Bachelor of Science

MAJORS IN ART, DESIGN, ART HISTORY, ART EDUCATION

ADMISSION TO MAJORS The department counsels freshmen and transfers. Faculty approval, and satisfactory completion of four courses in the specific field of study the student wishes to pursue is necessary for formal admission to the major. The Art Education major is essentially a fine arts program plus courses in art education, education, and student teaching. Admission to it is based on grade average (B in all major courses) and portfolio review during the junior year of studio work.

Students transferring from other departments within the University or other colleges and universities are required to meet admission-to-major requirements stated above. Portfolio review prior to admission to the art major is required in two cases: students entering as seniors in any program, and students entering as juniors in the art education program.

COMPOSITION AND READING REQUIREMENT See "Undergraduate Degree Requirements" in this publication.

LANGUAGE REQUIREMENT See opening section under "College of Arts and Sciences" in this publication.

**Permission of instructor required for all seminars. May be repeated for credit if no duplication.

MAJOR REQUIREMENTS

Major Courses Students complete one of the following four programs of major study (these are minimal requirements). All students majoring in the Department of Art must complete the last six required courses in their major at The American University. Four of these six courses must be in their specific field of study; they cannot be major-related.

Art: Twelve studio courses (painting, drawing, sculpture, printmaking, etching, including 05.104 and 05.120) with three courses in drawing, at least four courses in one field: painting, sculpture or graphics and two courses in another of the same three fields.

Art Education: Eleven studio courses with two courses in drawing, at least one course in each of four studio fields (painting, sculpture, ceramics, and printmaking) and at least four courses in one field: painting, sculpture or graphics. Two courses, 05.370, Crafts for the Art Teacher, and 05.371, Methods of Teaching Art, are taken in conjunction with 21.445, Student Teaching in Secondary Schools: See School of Education.

Design: Eleven courses including at least eight or nine in design and two or three in studio.

Art History: Ten art history courses including 07.100-1, Survey of Art I & II, and 07.500, Approaches to Art History.

Related Courses All majors (in any of the four programs listed above) are required to take four art history courses including 07.100-1, Survey of Art I & II.

Design majors are required to take 17.343, Photography.

Majors in the art education program are required to take four art history courses, 21.300, Foundations of Education, 21.320, Psychology of Education, and 21.445, Student Teaching in Secondary Schools.

All art history majors are required to take two studio courses and four courses in related humanities or social sciences approved by their advisor.

ELECTIVES To complete thirty-two courses.

Bachelor of Fine Arts

MAJOR IN FINE ARTS

ADMISSION TO THE MAJOR The B.F.A. program is designed to meet the needs of the exceptional student who desires an intensive studio experience within the context of the liberal arts and who, in the opinion of the faculty, is qualified for such intensive study. Admission is subject to the approval of a portfolio, judgment of grades, and a personal interview; approval of admission depends entirely on faculty action resulting from this review. Application for the B.F.A. program may be made by the student upon completion of six or more courses or three semesters of studio work at The American University and before the beginning of the senior year.

COMPOSITION AND READING REQUIREMENT Same as for other majors listed above.

LANGUAGE REQUIREMENT Same as for other majors listed above.

MAJOR REQUIREMENTS A student who elects to complete the program without prior admission as specified above is not automatically eligible for the degree.

Major Courses Eighteen studio courses including 05.104, 05.120, four courses in drawing, and at least seven in one area of concentration (painting, sculpture, or graphics, i.e., printmaking or etching).

Related Courses Four courses in art history including Survey of Art I and II. Ten electives must be taken outside the Department of Art.

ELECTIVES To complete a minimum of thirty-two course units. The remaining ten courses must be taken from other departments in the College of Arts and Sciences.

Graduate Degree Programs

Candidates for graduate degrees in all academic units must meet the requirements set forth in the University Minimum Standards for Graduate Studies. The requirements appearing below are those of this department and do not relieve degree candidates from compliance with the minimum standards.

Master of Fine Arts

MAJORS IN PAINTING, SCULPTURE

ADMISSION REQUIREMENTS A B.A. or B.F.A. degree with a minimum average of 3.00 (on a four point system) in the undergraduate art major *and* departmental approval of the applicant's portfolio of art work is required.

Portfolio should include at least ten drawings (including figure studies) and four to six paintings (and/or prints, if relevant). Slides may be submitted in lieu of paintings if shipping is difficult, but original drawings must be submitted.

MAJOR REQUIREMENTS Requirements include a minimum of thirty-six hours of approved graduate work, including six hours in 05.797 Master's Thesis Seminar, twenty-one hours in studio chosen from 05.520-.521; 05.533; 05.560; 05.700; 05.792; 05.793; and nine hours in graduate art history of which at least six must be in the thesis field (painting or sculpture).

WRITTEN COMPREHENSIVE EXAMINATION One is required in the theory and techniques of painting or sculpture, with one-third devoted to techniques and two-thirds to theory.

Core Field Select one: 05.010 Theory and Techniques of Painting; 05.011 Theory and Techniques of Sculpture.

THESIS Execution of an original work or works of art under the supervision of a graduate thesis committee. In addition, a written statement of artistic purpose subject to the approval of the committee is required.

Master of Arts

MAJOR IN ART HISTORY

ADMISSION REQUIREMENTS A minimum grade average of 3.00 in the undergraduate major is required. If the undergraduate major was not in art history, students admitted to the program will be required to have completed or to complete eighteen hours in art history in addition to thirty hours required for the degree. Reading knowledge of French, German or Italian must be certified during first semester (see tools of research requirement).

MAJOR REQUIREMENTS A minimum of thirty hours of approved graduate course work (combined total of at least forty-eight hours of undergraduate and graduate art history) including six hours in graduate research seminars (07.792 or 07.793). Within the overall aim of the department program, including these requirements, individual plans of study are defined by the student.

WRITTEN COMPREHENSIVE EXAMINATIONS Two, including one examination in core field and one in specialized field.

Core Field 07.003 History of Western Art (Greek to Modern).

Specialized Fields Select one: 07.009 Medieval Art; 07.010 Renaissance Art; 07.011 Baroque and Rococo Art; 07.012 Nineteenth and Twentieth Century Art; 07.020 Art in the United States.

THESIS SUBSTITUTION Satisfactory completion of a substantial research paper in each of two master's research seminars on the xx.600-xx.700 levels is required to complete the degree.

Courses of Instruction

Undergraduate Courses

STUDIO

05.104 INTRODUCTION TO VISUAL FORM (c 01.00) Develops visual perception and presents formal and theoretical background necessary for informed understanding of painting, sculpture, architecture. Lectures, discussion groups from visual material.

05.120 FUNDAMENTALS OF DRAWING AND PAINTING (c 01.00) Basic training in translating perception into the formal language of painting and drawing. Course time is divided between the two disciplines, but emphasis is on painting (counts as painting course to satisfy requirements in all majors except fine arts).

05.130 OIL PAINTING (c 00.25) Basic problems of figure and still life painting. Emphasis on color and design. Primarily for amateurs, students other than art majors. May be repeated for credit.

05.160 SKETCH CLASS (c 00.25) Life drawing with emphasis on rapid sketch. May be repeated for credit.

05.320 CREATIVE PAINTING (c 01.00) Studies in color, composition and drawing from still life and figure and in individually assigned projects. May be repeated for credit, but not in same semester. *Prerequisite:* 05.120 or equivalent.

05.340 SCULPTURE (c 01.00) Problems and principles of sculpture. Acquaintanceship with tools, techniques, materials for plastic expression. May be repeated for credit but not in same semester.

05.344 CERAMICS (c 01.00) Explores basic principles of working with clay. Instruction both in wheel and other methods of making pottery. Beginning and intermediate sections. May be repeated for credit.

05.360 DRAWING (c 01.00) Structural drawing from human figure: movement, expression. Range of techniques and media. May be repeated for credit, but not in same semester.

05.364 PRINTMAKING: WOODCUT AND SURFACE PRINT (c 01.00) Exploration of woodcut and relief print as media of creative expression. Emphasis on experimentation and control. *Prerequisites:* Two drawing courses or one drawing and one design course.

05.365 PRINTMAKING: SILKSCREEN (c 01.00) Exploration of serigraphy. Intensive work with different techniques. *Prerequisites:* 05.364 or two drawing courses or one painting and one design course.

DESIGN

05.348 DESIGN TECHNIQUES I (c 01.00) Exploration and analysis of graphic means and structures for design presentation. Design Techniques I and II are independent and need not be taken in sequence. *Prerequisites:* 05.350 and 05.351 or concurrent registration.

05.349 DESIGN TECHNIQUES II (c 01.00) Design Techniques I and II are independent and need not be taken in sequence. *Prerequisites:* 05.350 and 05.351 or concurrent registration.

05.350 DESIGN FUNDAMENTALS: COLOR (c 01.00) Study of properties of color, color juxtapositions and interaction. Design Fundamentals I and II are independent and need not be taken in sequence.

05.351 DESIGN FUNDAMENTALS: TWO-DIMENSIONAL (c 01.00) Fundamentals of space, color, and form relationships in graphic design. Design Fundamentals I and II are independent and need not be taken in sequence.

05.352 LETTERING AND TYPOGRAPHY I (c 01.00) Theory and analysis of letter forms as design and symbol. Study of type faces, arrangement and setting. *Prerequisite:* 05.351 or permission of instructor.

05.353 LETTERING AND TYPOGRAPHY II (c 01.00) Continuation of 05.352; particular application to advertising design. *Prerequisite:* 05.352, or permission of instructor.

05.356 ADVANCED DESIGN I (c 01.00) Experimentation and practice in design problems relating to visual communication; emphasis on techniques and solutions of professional problems. *Prerequisites:* 05.350-.351 and 05.348-.349 or permission of instructor.

05.357 ADVANCED DESIGN II (c 01.00) Practical consideration and execution of complex design problems involving previous design training. Continuation of 05.356. *Prerequisite:* 05.356 or permission of instructor.

ART EDUCATION

05.370 CRAFTS FOR ART TEACHERS (c 01.00) Exploration of various two-dimensional and three-dimensional crafts appropriate to teaching art at secondary level through studio practice. Art majors only. *Prerequisites:* junior or senior standing with four studio courses and portfolio review.

05.371 METHOD OF TEACHING ART IN ELEMENTARY AND SECONDARY SCHOOLS (c 01.00) Theoretical and practical considerations of teaching art at secondary level through lecture, discussion and observation. Meets for six weeks prior to nine weeks of student teaching. Must be taken in senior year in conjunction with 21.445 Student Teaching: Secondary Schools. Art majors only. *Prerequisites:* 05.370 and admission to 21.445.

05.380 TEACHING ART IN ELEMENTARY SCHOOLS (c 01.00) Methods and techniques of teaching art as part of regular elementary school instruction. Limited to education majors in elementary school program or permission.

05.390 INDEPENDENT READINGS IN ART (c 00.25 through 02.00)*

05.490 INDEPENDENT PROJECT IN ART (c 00.25 through 02.00)*

ART HISTORY

07.100 SURVEY OF ART I: ANCIENT AND MEDIEVAL (c 01.00) Illustrated historical introduction to architecture, sculpture and painting presented as an objectification and record of man's major beliefs and ideas to 1500. Field trips.

07.101 SURVEY OF ART II: RENAISSANCE AND MODERN (c 01.00) Illustrated historical introduction to architecture, sculpture and painting in Western world between 1500 and 1950. Field trips. *Prerequisite:* 07.100 or equivalent.

07.102 SURVEY OF THE DECORATIVE ARTS I (c 01.00) Illustrated historical introduction to decorative arts, furniture, and interior architecture, Greece through the 17th century.

07.103 SURVEY OF THE DECORATIVE ARTS II (c 01.00) Illustrated historical introduction to decorative arts, furniture, and interior architecture, from 18th through 20th centuries. *Prerequisite:* 07.102.

07.105 INTRODUCTION TO THE HISTORY OF ART (c 01.00) Artistic expression, styles, and purposes from ancient times to present, as shown by comparative study of a limited number of artists and works of art. Open only to non-majors.

07.301 GREEK ART (c 01.00) Greek art and architecture from the Archaic period through the Hellenistic.

07.302 ROMAN ART (c 01.00) Art and architecture of Rome from the Republic through the Empire. *Prerequisite:* 07.100 or 07.301.

07.306 20TH CENTURY ART (c 01.00) Painting, sculpture and architecture since 1900 in Europe and the United States. Investigates aesthetic theories common to contemporary art movements.

07.307 ORIENTAL ART: AN INTRODUCTORY SURVEY (c 01.00) Highlights of Asian art, with emphasis on: the artistic achievements of India, China, and Japan; interrelationships and influences; cultural, religious, and historical factors.

07.309 ORIENTAL ART: JAPANESE (c 01.00) Main currents and monuments of Japanese art from prehistoric to modern times.

07.310 AFRICAN ART (c 01.00) Familiarizes the student with the heritage of sub-Sahara Africa. Emphasis on advanced civilizations of the upper Nile, Ethiopia, and Nigeria.

07.311 AFRO-AMERICAN ART (c 01.00) Exploration of role of Black visual artist in America from colonial times to present.

07.390 INDEPENDENT READING IN ART HISTORY (c 00.25 through 02.00)*

07.490 INDEPENDENT PROJECT IN ART HISTORY (c 00.25 through 02.00)*

Graduate and Advanced Undergraduate Courses

STUDIO

05.520 TECHNIQUES OF ETCHING I (s 03.00) Investigation of etching and its various techniques. May be repeated once for credit, but not in the same semester. *Prerequisites:* 05.364 or 05.365 or 4 courses in drawing.

05.521 TECHNIQUES OF ETCHING II (s 03.00) Continuation of 05.520. May be repeated once for credit. *Prerequisite:* 05.520.

05.533 MATERIALS AND TECHNIQUES OF PAINTING (s 03.00) Technical investigation of painting methods from Renaissance to present. Preparation of grounds, media, underpainting, glazing, emulsions for tempera, etc. *Prerequisites:* four painting courses.

05.560 DRAWING (s 03.00) Experiments in the creative and expressive quality of drawing. Personal creative expression. *Prerequisites:* Admission to graduate program in fine arts or permission of instructor.

05.590 INDEPENDENT READINGS IN ART (s 01.00 through 06.00)*

ART HISTORY

07.500 APPROACHES TO ART HISTORY (s 03.00) Required for undergraduate art history majors. Recommended for graduate art history students. Readings, discussion, and written work based on selected topics. Consideration of problems in formal analysis, style, iconography, and quality. Attention given to critical interpretation and writing research papers in art history. *Prerequisites:* Four art history courses or graduate status.

07.501 BAROQUE PAINTING (s 03.00) Seventeenth century painting in Italy, Spain, France, the Netherlands, and England. Emphasis on Caravaggio, Rubens, Rembrandt, Vermeer, Poussin, and Velasquez. *Prerequisites:* Two art history courses including 07.101 or equivalent.

07.502 MEDITERRANEAN MEDIEVAL ART (s 03.00) Early Christian in Italy; Byzantine in Near East; Romanesque in Italy. *Prerequisites:* Two undergraduate art history courses including 07.100 or equivalent.

07.503 NORTH EUROPEAN MEDIEVAL ART (s 03.00) Art from early Christian period to 1400 (manuscript illuminations, French cathedrals, sculpture, stained glass). *Prerequisites:* Two undergraduate art history courses including 07.100 or equivalent.

07.504 GOTHIC ART (s 03.00) Architecture, painting, sculpture, manuscript illuminations and stained glass from 12th to 15th centuries in Europe. *Prerequisites:* Two art history courses including 07.100 or equivalent.

07.506 RENAISSANCE SCULPTURE (s 03.00) Italian sculpture from 1400 to 1700 with stress on achievements of Donatello, Michelangelo, Bernini. *Prerequisites:* Two art history courses including 07.101 or permission of instructor.

07.507 MODERN SCULPTURE (s 03.00) Changes in sculpture from 1700 to present with stress on innovations of Rodin, Brancusi, Moore and American abstractionists. *Prerequisites:* Two art history courses including 07.101 or permission of instructor.

07.508 PAINTING: ROCOCO THROUGH IMPRESSIONISM (s 03.00) Painting in 18th and 19th century Europe; styles of Rococo, Neo-Classicism, Romanticism, Realism, and Impressionism; emphasis upon Watteau, David, Delacroix, Goya, and Monet. *Prerequisites:* Two art history courses including 07.101 or equivalent.

07.509 MODERN PAINTING (s 03.00) Painting in Europe and America from Post-Impressionism through contemporary painters, dealing with cubism, fauvism, surrealism, and abstract expressionism. Concentration upon major artists, e.g., Cezanne, Van Gogh, Gauguin, Picasso, and Matisse. *Prerequisites:* Two art history courses including 07.101 or equivalent.

07.510 NORTHERN RENAISSANCE PAINTING (s 03.00) Painting in France, Germany and the Netherlands from the late fourteenth through the sixteenth centuries. Emphasis upon major artists such as Jan van Eyck, Durer, Holbein, Bruegel. *Prerequisites:* Two art history courses including 07.101 or equivalent.

07.513 EARLY RENAISSANCE PAINTING (s 03.00) Developments in the various artistic centers examined in respect to the formulation and solution of Renaissance pictorial problems from 1300–1475. *Prerequisites:* Two art history courses including 07.101.

07.514 16TH CENTURY ITALIAN RENAISSANCE PAINTING (s 03.00) Development of High Renaissance, Mannerist and proto-Baroque styles; major artistic personalities: 1475–1580. *Prerequisites:* Two art history courses including 07.101.

07.515 GRAPHIC ART (s 03.00) Unique qualities of graphic art (drawing and prints). Renaissance to present. *Prerequisites:* Two art history courses including 07.101 or equivalent.

07.516 FIFTEENTH AND SIXTEENTH CENTURY ARCHITECTURE (s 03.00) Renaissance and Mannerist periods in European architecture. Emergence of classicism from the Gothic past. Covers architecture

* See description under "General Curriculum Information" in this publication.

and city planning and attempts to explain new forms in terms of political and social developments. *Prerequisites:* Two art history courses including 07.100 or 07.101.

07.517 SEVENTEENTH AND EIGHTEENTH CENTURY ARCHITECTURE (s 03.00) Architecture and city planning from the Baroque to the French Revolution. Seeks to correlate changing forms and political, social events. *Prerequisites:* Two art history courses including 07.101.

07.518 NINETEENTH AND TWENTIETH CENTURY ARCHITECTURE (s 03.00) Modern period architecture; encounter of architecture with machine age. *Prerequisites:* Two art history courses including 07.101.

07.520 SEMINAR IN ART HISTORY (s 03.00) Reports and critical discussion of research papers on topic announced for semester. May be repeated for credit. *Prerequisites:* Six art history courses and permission of instructor.

07.531 PAINTING AND SCULPTURE IN THE UNITED STATES, TO 1865 (s 03.00) Painting and sculpture in the United States, from the colonial period to the Civil War, with attention to relationships with European art. *Prerequisites:* Two art history courses including 07.101 or the equivalent or permission of instructor.

07.532 PAINTING AND SCULPTURE IN THE UNITED STATES, FROM 1865 TO THE PRESENT (s 03.00) Painting and sculpture in the United States, from the Civil War to the present, with attention to relationships with European art. *Prerequisites:* Two art history courses including 07.101 or the equivalent or permission of instructor.

07.533 AMERICAN ARCHITECTURE TO 1870 (s 03.00) Development of American architecture to about 1870, relating it to European developments. *Prerequisites:* Two art history courses including 07.101 or the equivalent or permission of instructor.

07.534 AMERICAN ARCHITECTURE: 1870 TO THE PRESENT (s 03.00) American architecture and city planning from the post-Civil War period to the present. *Prerequisites:* Two art history courses including 07.101 or the equivalent or permission of instructor.

07.590 INDEPENDENT READING IN ART HISTORY (s 01.00 through 06.00)*

Graduate Courses

STUDIO

05.690 INDEPENDENT STUDY PROJECT IN ART (s 01.00 through 06.00)*

05.700 CRITICISM OF PAINTING (s 03.00) Theoretical and philosophical consideration of painting. Detailed analysis of artistic works. Lecture and slides. *Prerequisite:* admission to graduate fine arts program or permission of instructor.

05.792 ART LABORATORY: PAINTING (s 03.00) Intensive investigation of ideas and techniques in painting. Emphasis on experimentation leading to development of individual style. *Prerequisite:* admission to graduate fine arts program or permission of instructor.

05.793 ART LABORATORY: SCULPTURE (s 03.00) Intensive investigation of sculpture with emphasis on experimentation leading to individual style. *Prerequisite:* Admission to graduate fine arts program or permission of instructor.

05.794 DIRECTED PROJECT IN FINE ARTS (s 03.00) Open only to M.F.A. candidates who have completed six hours of 05.792 or 05.793. Student arranges painting or sculpture (etching may be arranged specially for students doing thesis in etching) under individual faculty member with approval of faculty member and chairman. Qualitative grade will be given. May be repeated for credit.

05.797 MASTER'S THESIS SEMINAR (s 01.00 through 06.00) M.F.A. candidate with permission of chairman.

ART HISTORY

07.690 INDEPENDENT READING PROJECT IN ART HISTORY (s 01.00 through 06.00)*

07.792 RESEARCH SEMINAR IN ART HISTORY (s 03.00) Limited to one of five areas. Specific topics announced each semester. May be repeated for credit but only in a different period. Areas: (1)

* See description under "General Curriculum Information" in this publication.

Medieval Art; (2) Renaissance Art; (3) Baroque and Rococo Art; (4) 19th and 20th Century Art; and (5) American Art. *Prerequisites*: open only to M.A. candidates with twelve hours of graduate art history with B average. Permission of the chairman.

07.793 DIRECTED RESEARCH IN ART HISTORY (s 03.00) Topic arranged. Must be in fields listed under 07.792 but not in field covered in 07.792 that semester. May not be repeated for credit. *Prerequisites*: open only to M.A. candidates with twelve hours of graduate art history with B average. Permission of chairman.

Biology

CHAIRMAN Billy R. Griffin

FULL-TIME FACULTY

Professor E. J. Breyere, S. O. Burhoe (Emeritus)

Associate Professor R. R. Anderson, W. C. Banta, R. H. Fox

Assistant Professor M. A. Champ, B. J. Clark, B. R. Griffin, C. R. Wrathall

Senior Research Scientist N. H. McLeod

FIELDS OF STUDY General biology, microbiology, plant sciences, developmental biology, genetics, immunology, physiology, ecology (environmental science), medical technology, interdisciplinary science studies, and a marine science program combining University courses with those available through the Marine Science Consortium (See Marine Science section in this publication).

Undergraduate Degree Programs

Bachelor of Arts

MAJOR IN BIOLOGY

ADMISSION TO THE MAJOR The department counsels freshmen and transfers. Not designed for students planning to enter medical or dental school, or graduate school in biology. Successful completion of General Biology I and II with a grade of C or better is necessary for admission.

COMPOSITION AND READING REQUIREMENT See "Undergraduate Degree Requirements" in this publication.

LANGUAGE REQUIREMENT See opening section under "College of Arts and Sciences" in this publication.

MAJOR REQUIREMENTS

Major Courses 09.101 General Biology I (waived with advanced placement); 09.102 General Biology II (waived with advanced placement); 09.230 Plant Classification and Utilization; 09.358 Mechanisms of Development; 09.310 Invertebrate Zoology; 09.330 Human Anatomy and Physiology I; 09.331 Human Anatomy and Physiology II; 09.356 Genetics; 09.523 General Ecology.

Elective Biology Courses One free elective in biology to be chosen from the xx.100 through xx.500 levels.

Related Courses 15.120 General Chemistry I; 15.121 General Chemistry I Laboratory; 15.130 General Chemistry II; 15.131 General Chemistry II Laboratory.

Electives To complete a minimum of thirty-two course units.

Bachelor of Science

MAJOR IN BIOLOGY

ADMISSION TO THE MAJOR The department counsels freshmen and transfers. Successful completion of General Biology I and II with a grade of C or better is necessary for admission.

COMPOSITION AND READING REQUIREMENT See "Undergraduate Degree Requirements" in this publication.

LANGUAGE REQUIREMENT See opening section under "College of Arts and Sciences" in this publication.

MAJOR REQUIREMENTS

Major Courses 09.101 General Biology I (waived with advanced placement); 09.102 General Biology II (waived with advanced placement); 09.250 Cell Biology; 09.304 Plant Structure and Function; 09.365 Genetics; 09.357 Genetics Laboratory; 09.358 Mechanisms of Development.

Elective Biology Courses Selected from the xx.200 through xx.500 levels to total ten courses in biology, one of which may be an Independent Reading Course (09.390 or 09.590) or Independent Study Project (09.490), and one of which may be Biochemistry (15.560 or 15.561).

Related Courses 15.310 Organic Chemistry I (proof of competence in General Chemistry is required); 15.312 Organic Chemistry I Laboratory; 15.320 Organic Chemistry II; 15.322 Organic Chemistry II Laboratory; 51.220 Introduction to Physics I; 51.221 Introduction to Physics I Laboratory; 51.222 Introduction to Physics II; 51.223 Introduction to Physics II Laboratory.

Tool Courses 41.101 Applied Calculus I (competence in basic mathematics is assumed a prerequisite for this course); 69.202 Basic Statistics.

Electives To complete a minimum of thirty-two course units.

MAJOR IN MICROBIOLOGY

ADMISSION TO THE MAJOR Same as listed above for biology.

COMPOSITION AND READING REQUIREMENT See "Undergraduate Degree Requirements" in this publication.

LANGUAGE REQUIREMENT See opening section under "College of Arts and Sciences" in this publication.

MAJOR REQUIREMENTS

Major Courses 09.101 General Biology I (waived with advanced placement); 09.102 General Biology II (waived with advanced placement); 09.250 Cell Biology; 09.310 Invertebrate Zoology, or 09.532 Parasitism and Symbiology; 09.340 Microbiology; 09.341 Microbiology Laboratory; 09.411 Pathogenic Microbiology; 09.500 Microbial Physiology; 09.541 Immunology, or 09.543 Virology.

Related Courses 15.310 Organic Chemistry I (proof of competence in General Chemistry required); 15.312 Organic Chemistry I Laboratory; 15.320 Organic Chemistry II; 15.322 Organic Chemistry II Laboratory; 15.350 Quantitative Analysis; 15.351 Quantitative Analysis Laboratory; 51.220 Introduction to Physics I; 51.221 Introduction to Physics I Laboratory; 51.222 Introduction to Physics II; 51.223 Introduction to Physics II Laboratory.

Tool Courses 41.101 Applied Calculus I (competence in basic mathematics is assumed a prerequisite for this course).

Electives To complete a minimum of thirty-two course units.

MAJOR IN MEDICAL TECHNOLOGY

ADMISSION TO THE MAJOR Any student who has been admitted to the College of Arts and Sciences may apply for admission. Contact Dr. Richard R. Anderson, Medical Technology Coordinator.

COMPOSITION AND READING REQUIREMENT See "Undergraduate Degree Requirements" in this publication.

LANGUAGE REQUIREMENT See opening section under "College of Arts and Sciences" in this publication.

MAJOR REQUIREMENTS

Required Chemistry Courses 15.120 General Chemistry I; 15.121 General Chemistry I Laboratory; 15.130 General Chemistry II; 15.131 General Chemistry II Laboratory; 15.310 Organic Chemistry I; 15.312 Organic Chemistry I Laboratory; 15.320 Organic Chemistry II; 15.322 Organic Chemistry II Laboratory.

Required Biology Courses 09.101 General Biology I; 09.102 General Biology II; 09.250 Cell Biology; 09.335 Vertebrate Physiology; 09.356 Genetics; 09.340 Microbiology.

Medical Technology Courses The following courses (09.360-09.369) are open only to students who have (1) completed twenty-four or more courses with a cumulative grade point average of 2.00 or better, (2) have received a grade of C or better in all non-elective courses, and (3) have completed eight or more courses at The American University. Transfer students with less than eight courses taken at the University, or students who do not precisely meet the other requirements may arrange admission to senior courses only by special arrangement with coordinator of the Medical Technology Program.

Medical technology courses are given at the Oscar B. Hunter Laboratory, 915 Nineteenth Street, N.W., Washington, D.C., in affiliation with Sibley Hospital and Doctors Hospital. The program requires twelve months of study during which the student may take other courses only by special arrangement. Senior students admitted to the program are automatically considered for scholarships awarded by the Oscar B. Hunter Fund.

These courses are: 09.360 Blood Banking; 09.361 Clinical Parasitology; 09.362 Immunology and Serology; 09.363 Urinalysis and Clinical Microscopy; 09.364 Hematology; 09.365 Laboratory Management and Basic Statistics; 09.366 Clinical Chemistry; 09.367 Clinical Microbiology and Mycology; 09.368 Coagulation; 09.369 Clinical Pathology.

Mathematics Courses One semester college level statistics.

Electives To complete a minimum of thirty-two course units.

To practice medical technology, students must pass the Medical Technology Registry Examination administered by the American Society of Clinical Pathologists, given after the completion of the course work.

Graduate Degree Program

Candidates for graduate degrees in all academic units must meet the requirements set forth in the University Minimum Standards for Graduate Studies. The requirements appearing below are those of this department and do not relieve degree candidates from compliance with the standards.

Master of Science

MAJOR IN BIOLOGY

ADMISSION See "Admission to Graduate Study" in this publication. Evidence of having taken the Graduate Record Examination Advanced Test in Biology and evaluation by the Department Graduate Studies Committee. Applications are reviewed on March 15 for entrance in the Fall, and on October 15 for entrance in the Spring and Summer periods. In order to insure that credentials can be reviewed, applications should be submitted to the Office of Admissions, Financial Aid and Veterans Affairs, Programs and Services at least four weeks in advance of those dates.

COURSE REQUIREMENTS Minimum of thirty-two hours of approved graduate work, including 09.797 Master's Thesis Research (six hours) and 09.700 Graduate Seminar (two hours).

WRITTEN COMPREHENSIVE EXAMINATION One selected from the following fields: 09.001 General Biology (for M.S.S.T. candidates only); 09.002 Plant Sciences; 09.003 Developmental Biology; 09.004 Physiology; 09.005 Microbiology; 09.006 Environmental Science-Ecology; 09.007 Genetics; 09.008 Immunology; 09.009 Zoology.

OTHER REQUIREMENTS Those listed in the department's "Graduate Manual," e.g., advancement to candidacy, thesis, and oral defense.

Courses of Instruction

Undergraduate Courses

09.101, 09.102 GENERAL BIOLOGY I AND II (c 1.00) (c 01.00) Two-semester series to be taken in sequence. First semester, General Biology I, introduces basic chemical principles of biology and is concerned with aspects of molecular and cellular organization as may concern anabolism, catabolism and reproduction. Second semester, General Biology II, includes consideration of higher levels of organization and relationship of form and function in ecological adaptations.

09.203 INTRODUCTION TO OCEANOGRAPHY (c 01.00) Marine geology, oceanography, life in sea, fisheries, marine technology, international law. Economic aspects of animals in sea. *Prerequisites:* Two courses in natural science or 09.101 General Biology I.

09.204 MARINE BIOLOGY (c 01.00) Survey of animals and plants in the sea, their structures, habits and distributions, with emphasis on dangerous, conspicuous, and economically important forms. Weekend field trips and cruises. *Prerequisite:* 09.102 or permission of instructor; 09.203 recommended.

09.210 EVOLUTION (c 01.00) History of evolutionary thought, mechanisms of evolutionary change, evidence for and theories proposed to account for evolution. *Prerequisite:* One semester of biology or permission of instructor.

09.225 WILDLIFE CONSERVATION AND MANAGEMENT (c 01.00) General principles of ecology. Illustration of how these principles relate to conservation and management of eco-systems. Discussion of endangered species and communities. Conservation and wildlife management practices. Conservation and education. Federal and state laws regulating conservation and management of eco-systems. *Prerequisite:* one natural science course or permission of instructor.

09.230 PLANT CLASSIFICATION AND UTILIZATION (c 01.00) Introduction to principles of plant identification. Emphasis on common plants in area. Identification and use of edible wild plants. Identification and symptomology of poisonous wild plants. Use of plants by man. *Prerequisite:* one semester biology or permission of instructor.

09.250 CELL BIOLOGY (c 01.00) Integrated study of cell structure and function in microorganisms, plants, and animals emphasizing their ultra-structure, biochemistry, and physiology. *Prerequisite:* 09.102.

09.300 COMPARATIVE VERTEBRATE ANATOMY (c 01.25) Study of evolution of vertebrate structure with emphasis given to interpretation of structure on basis of function. Laboratory involves dissection of selected vertebrates, usually dogfish shark and cat. *Prerequisite:* 09.102 or permission of instructor.

09.304 PLANT STRUCTURE AND FUNCTION (c 01.00) Survey of plant kingdom. Evolutionary relationships of plants based on anatomy, morphology, and physiology. Plant growth and development and plant diseases. *Prerequisite:* 09.102.

09.330, 09.331 HUMAN ANATOMY AND PHYSIOLOGY I AND II (c 01.00) (c 01.00) Two semester course taken in sequence. Morphologic and functional studies of mammalian systems with special reference to man, directed toward understanding of relationship between normal and abnormal function and homeostasis. Laboratory assignments demonstrate physiological principles. *Prerequisites:* 09.102, at least one semester of chemistry, and permission of department chairman.

09.335 VERTEBRATE PHYSIOLOGY (c 01.00) Properties and physiological processes common to all vertebrates; based on a functional study of vertebrate organ systems. *Prerequisite:* 09.250.

09.340 MICROBIOLOGY (c 01.00) Microorganisms and their relation to human welfare. Primary emphasis on bacteria. *Prerequisite:* one semester organic chemistry or permission of instructor.

09.341 MICROBIOLOGY LABORATORY (c 00.50) Experiments include microscopy, staining techniques, qualitative and quantitative properties of bacterial growth, physiology, and other topics. Optional for non-biology and non-microbiology majors.

09.356 GENETICS (c 01.00) Basic genetic principles and concepts as revealed by classical and modern research methods. Patterns of gene transmission; gene structure, function, interactions, and mutation; chromosomal aberrations; non-chromosomal inheritance; biochemical genetics and population genetics. (Laboratory optional for non-biology majors.) *Prerequisite:* one semester of biology.

09.357 GENETICS LABORATORY (c 00.50) Experiments designed to illustrate basic genetic concepts utilizing materials from corn, *Drosophila*, and man. Optional for non-biology majors.

09.358 MECHANISMS OF DEVELOPMENT (c 01.25) Integration of descriptive morphology and experimental physiology of developmental processes in selected invertebrate and vertebrate types. Laboratory involves the study of prepared microscope slides and living material. *Prerequisites:* 09.102, 09.250.

09.390 INDEPENDENT READING COURSE IN BIOLOGY (c 00.25 through 02.00)*

* See description under "General Curriculum Information" in this publication.

09.411 PATHOGENIC MICROBIOLOGY (c 01.00) Course is designed to familiarize students with basic principles of disease epidemiology and etiology. Concentrating on bacterial and virus diseases, offers practical laboratory experience in study of these agents and their effects. *Prerequisite:* 09.340.

09.455 PROSEMINAR IN BIOLOGY (c 00.50) Seminar for undergraduates. Preparation and presentation of lectures and demonstrations on biological topics. *Prerequisites:* junior or senior standing in biology and permission of instructor.

09.490 INDEPENDENT STUDY PROJECT IN BIOLOGY (c 00.25 through 02.00)*

MEDICAL TECHNOLOGY

The following courses (09.360 through 09.369) are open only to senior students in the Medical Technology program.

09.360 BLOOD BANK (c 01.25) Genetics of blood groups and sub-groups. Donor screening and recruitment, blood processing, component preparations, transfusion reactions, AABB and NIH standards. Lecture and laboratory. *Prerequisite:* senior in medical technology.

09.361 CLINICAL PARASITOLOGY (c 00.50) Identification of human protozoan and helminth parasites by microscopic, chemical and immunologic techniques. Invertebrate parasite vectors. Lecture and laboratory. *Prerequisite:* senior in medical technology.

09.362 IMMUNOLOGY AND SEROLOGY (c 00.25) Principles of immune response from clinical point of view. Serological testing, heterophile tests, fluorescent antibody theory and technique, febrile agglutination, anti-streptolysin titre, latex procedures, colloidal gold and complement fixation theory. *Prerequisite:* senior in medical technology.

09.363 URINALYSIS AND CLINICAL MICROSCOPY (c 00.25) Study of urine to infer renal function. Anatomy and physiology of urinary system, physical and chemical characteristics of normal and pathological urine. Renal function tests, introductory histopathology, slide preparation, frozen sections, quality control procedures. Lecture and laboratory. *Prerequisite:* senior in medical technology.

09.364 HEMATOLOGY (c 01.50) Hematopoiesis, morphology of red and white blood cells, hemoglobinopathy, hematology case studies. Emphasis on differential white cell counts to determine pathological abnormalities. Lecture and laboratory. *Prerequisite:* senior in medical technology.

09.365 LABORATORY MANAGEMENT AND BASIC STATISTICS (c 00.25) Introduction to research evaluation, application of statistics to interpreting laboratory results, reading scientific articles, care and handling of instruments, quality control, personnel and public relations. Lecture and laboratory. *Prerequisite:* senior in medical technology.

09.366 CLINICAL CHEMISTRY (c 01.75) Principles underlying biochemical diagnosis of human disease. Analytical chemistry, protein-free filtrates, chemical fractionation of protein, lipids and liver function tests, inorganic substances, classification and determination of enzymes, acid-base balance, hormones and toxicology. Lecture and laboratory. *Prerequisite:* senior in medical technology.

09.367 CLINICAL MICROBIOLOGY AND MYCOLOGY (c 01.75) Diagnosis of disease caused by bacteria, fungi, and viruses. Bacterial morphology, physiology, and genetics. Immune theory, cultivation of pathogens. Tissue and organ culture. Identification of microbes. Lecture and laboratory. *Prerequisite:* senior in medical technology.

09.368 COAGULATION (c 00.25) Acquired and genetic pathological bleeding conditions. Assay for blood proteins involved in blood clot formation. Bone marrow response to coagulopathy. Lecture and laboratory. *Prerequisite:* senior in medical technology.

09.369 CLINICAL PATHOLOGY (c 00.25) Summary and correlation of Medical Technology courses taken in senior year. How to write scientific and technical papers. Students write a paper comparing two laboratory methods. *Prerequisite:* senior in medical technology.

Graduate and Advanced Undergraduate Courses

BIOLOGY

09.500 MICROBIAL PHYSIOLOGY (s 04.00) General approach to analysis of principles of intermediate metabolism of microorganisms, emphasis on bacteria. Topics included are: storage and

* See description under "General Curriculum Information" in this publication.

utilization of energy, metabolic reactions of chemosynthetic organisms, metabolism associated with biosynthesis and growth. Discussion on unique physiological systems of microbes in relation to structure. Laboratories stress the diversity of physiological processes of bacteria. *Prerequisites:* 09.340 and organic chemistry courses; biochemistry courses recommended but not required.

09.501 COOPERATIVE WORK-STUDY AT THE NATIONAL AQUARIUM (s 04.00) Maintenance, breeding, disease control, and rearing of aquatic animals in freshwater and marine controlled filtered aquaria. Field collection and taxonomy of aquatic animals. Cooperative work-study program designed to provide students with practical work experience in aquatic biology to augment academic study program. Also designed to have student develop and conduct research problem or prepare review paper on some aspect of the field. Students may be hired as Fisheries Biologists-Trainees, GS-4, to support tuition expenses. *Prerequisite:* permission from department chairman.

09.502 COOPERATIVE WORK-STUDY AT THE LIGHTSHIP CHESAPEAKE (s 04.00) Organization and coordination of environmental programs through National Park Service's Operation Lightship Chesapeake on Potomac River watershed. Designed to provide students with practical field experience in aquatic biology. Another option available to students is to conduct research project or prepare paper on the Potomac River. Tuition for course will be paid by Lightship Chesapeake. *Prerequisite:* permission from department chairman.

09.510 IMMUNOGENETICS (s 03.00) Genetic control of immunologic reactions; inheritance of cell-borne antigens determining blood groups and transplantation of cells, tissues and organs. Current concepts of related immunologic phenomena including cancer and pregnancy. *Prerequisite:* two courses in biology.

09.520 LIMNOLOGY (s 04.00) Study of physical, chemical, and biological properties of fresh water environments. Ponds, lakes, reservoirs, rivers, and estuaries studied as integrable systems of standing or flowing waters. Geochemical cycles and contribution of urban and terrestrial components to these systems. *Prerequisite:* senior or graduate standing.

09.523 GENERAL ECOLOGY (s 04.00) Aquatic and terrestrial ecology; principles stressed through extensive field work; aquatic phase with emphasis on estuarine ecosystems, terrestrial phase with emphasis on synecology in various ecosystems. *Prerequisite:* senior or graduate standing in biology.

09.524 SYSTEMS ECOLOGY (s 04.00) Study of systems ecology organisms at population and community levels. Principles of plant and animal ecology, an evolutionary approach to environmental selection and detailed presentation of the communities of various habitats. Selected topics in behavior. *Prerequisite:* 09.523.

09.526 COMPARATIVE MAMMALIAN EMBRYOLOGY (s 04.00) Descriptive aspects of embryology of mammal. Emphasis on development of human. *Prerequisites:* 09.200 and 09.201.

09.531 ANIMAL HISTOLOGY (s 04.00) Structures and properties of cells. Microscopic study of tissues and organs of representative mammals, including man. *Prerequisite:* senior or graduate standing in biology.

09.532 PARASITISM AND SYMBIOLOGY (s 04.00) Life cycles, morphogenesis, physiology and behavior of symbionts, classical parasitology with symbiotic relationships, be they mutualism, cooperation, or parasitism. Laboratories deal with identification and taxonomy. *Prerequisite:* senior or graduate standing in biology.

09.535 ENDOCRINOLOGY (s 04.00) Structure and function of endocrine glands with emphasis on their control of mammalian functional processes. *Prerequisite:* advanced standing in biology and organic chemistry.

09.541 IMMUNOLOGY (s 04.00) Basic immunological principles. Emphasis on relationship between in-vitro detection of immune factors and in-vivo demonstration of their effects. Laboratory includes individual projects and literature reviews are required of graduate students. *Prerequisites:* 09.340 and senior or graduate standing in biology.

09.543 VIROLOGY (s 04.00) Nature and properties of plant, animal, and bacterial viruses. Laboratory techniques for cultivation and manipulation of viruses. *Prerequisites:* 09.340, one year of organic chemistry, and senior or graduate standing in biology.

09.550 SCIENTIFIC PUBLICATION (s 04.00) Tools necessary for publication of a scientific paper. Emphasis on microscopy, photomicroscopy, macrophotography, illustration, writing, editing, printing, employment. *Prerequisite:* full-time graduate standing in biology or permission of instructor.

09.555 WATER POLLUTION BIOLOGY (s 02.00) Use of biological indicators of pollution in fresh water, estuarine and salt water environments. Effects of pollution on aquatic eco-systems from system level to species level. Lecture and laboratory may not be taken separately for biology majors. *Prerequisite:* senior or graduate standing.

09.556 WATER POLLUTION BIOLOGY LABORATORY (s 04.00) Laboratory consists of analytical techniques for chemical, physical, and biological parameters which are affected by pollution. Includes specific methods for bio-assays and collection and analysis of field data. Lecture and laboratory may not be taken separately for biology majors. *Prerequisite:* senior or graduate standing.

09.565 MOLECULAR GENETICS (s 03.00) Modern research concerning DNA, RNA, and protein, from a chemical point of view, concerning their function within the cell. *Prerequisites:* 09.250, 09.340, 09.356, 15.320 and permission of instructor.

09.560 HUMAN GENETICS (s 04.00) Genetics of man: normal and abnormal karyotypes; human biochemical genetics; genes in individuals, kindreds and populations. *Prerequisites:* 09.356, advanced standing in biology, or instructor's permission.

09.571 SPECIAL TOPICS IN ECOLOGY (s 01.00 through 04.00) May be repeated for credit if different topic covered. *Prerequisite:* one course in basic ecology.

09.572 SPECIAL TOPICS IN VERTEBRATE PHYSIOLOGY (s 01.00 through 04.00) May be repeated for credit if different topic covered. *Prerequisite:* permission of instructor.

09.573 SPECIAL TOPICS IN MICROBIOLOGY (s 01.00 through 04.00) May be repeated for credit if different topic covered. *Prerequisite:* permission of instructor.

09.574 SPECIAL TOPICS IN GENETICS (s 01.00) through 04.00) May be repeated for credit if different topic covered. *Prerequisite:* permission of instructor.

09.575 SPECIAL TOPICS IN IMMUNOLOGY (s 01.00 through 04.00) May be repeated for credit if different topic covered. *Prerequisite:* permission of instructor.

09.576 SPECIAL TOPICS IN ZOOLOGY (s 01.00 through 04.00) May be repeated for credit if different topic covered. *Prerequisite:* permission of instructor.

09.577 SPECIAL TOPICS IN DEVELOPMENTAL BIOLOGY (s 01.00 through 04.00) In-depth discussion of areas of current interest such as regeneration, development of immunological competence, developmental genetics, congenital defects, etc. Subject matter may vary from year to year. Lecture only. *Prerequisites:* 09.358 and permission of instructor.

09.590 INDEPENDENT READING COURSE IN BIOLOGY (s 01.00 through 06.00)*

09.592 SEMINAR AT THE SMITHSONIAN (s 01.00) Attendance at seminar series given by Smithsonian during Spring semester each year. Subject matter different for each offering.

Graduate Courses

09.603 INTRODUCTION TO OCEANOGRAPHY (s 04.00) Origin of earth, chemical and physical character of sea water, marine geology, atmospheric circulation, currents, waves, tides, sediments, instrumentation, economic aspects of marine life, marine ecology. Weekend field trips. Students attend lectures for 09.203, Introduction to Oceanography (undergraduate). Meetings are held one hour and fifteen minutes each week in addition to the undergraduate course hours. *Prerequisite:* permission of instructor.

09.623 MARINE ECOLOGY (s 03.00) Influence of the physical and biological environment on distribution of marine and estuarine organisms. Emphasis on productivity, diversity, and impact of man on economically valuable environments. *Prerequisite:* 09.523.

09.624 MARINE ECOLOGY LABORATORY (s 02.00) Laboratory and field experience in sampling, measuring, and identifying marine and estuarine organisms. Measuring physical conditions with standard oceanographic instruments. Experimental cultivation of marine organisms. To be taken concurrently with 09.623.

09.690 INDEPENDENT STUDY PROJECT IN BIOLOGY (s 01.00 through 06.00)*

09.700 GRADUATE SEMINAR (s 01.00) Selected topics, may be repeated once.

* See description under "General Curriculum Information" in this publication.

09.710 TRANSPLANTATION BIOLOGY (s 03.00) Practical and theoretical study of immunogenetic phenomena as related to transplantation, cancer and reproduction. *Prerequisite:* permission of instructor.

09.730 ADVANCED CELL PHYSIOLOGY (s 04.00) Emphasizes the structure and functions of cellular components: chromosomes, mitochondria, membranes, nuclear-cytoplasmic interactions, and chloroplasts. Offers current information about mechanisms involved. *Prerequisites:* 09.250 and graduate standing in biology or permission of instructor.

09.731 SELECTED TOPICS IN ADVANCED MOLECULAR BIOLOGY (s 01.00) Selected topics will include membrane structure, junctions, membrane-polysome interactions, up-to-date information in nucleic acid research, cellular responses to cyclic AMP, prostaglandins and neurobiology, learning, memory, and effects of drugs, etc. *Prerequisites:* 09.730 and permission of instructor.

09.733 RADIATION BIOLOGY (s 03.00) Biological aspects of ionizing radiation in relation to whole organism, to organ systems, cellular and subcellular structures through laboratory experiments. *Prerequisite:* graduate standing.

09.752 BACTERIAL GENETICS (s 03.00) Genetic principles applicable to bacteria and viruses. Mutation, recombination, transformation, conversion, transduction, bacteriophage, molecular genetics. *Prerequisites:* 09.340, 09.356, and graduate standing in biology.

09.761 EXPERIMENTAL EMBRYOLOGY (s 04.00) Mechanisms of fertilization, differentiation and growth of vertebrates. Laboratory projects include experimental tests with selected vertebrate embryonic tissue cultures. *Prerequisite:* graduate standing in biology, 09.200, 09.201, 09.526.

09.797 MASTER'S THESIS RESEARCH (s 01.00 through 06.00)

Chemistry

CHAIRMAN Matthew F. Norton

FULL-TIME FACULTY

University Professor L. Schubert

Professor M. H. Aldridge, R. T. Foley, D. Hadary, M. F. Norton, F. A. H. Rice, P. F. Waters

Associate Professor A. Baker, T. S. Cantrell, F. W. Carson, N. M. Roscher

Senior Research Scientist T. Astrup, B. F. Brown, H. S. Isbell

FIELDS OF STUDY General chemistry, biochemistry, organic chemistry, inorganic chemistry, physical chemistry, analytical chemistry, electrochemistry, polymer chemistry, and earth sciences.

Undergraduate Degree

Bachelor of Science

MAJOR IN CHEMISTRY

ADMISSION TO THE MAJOR The department counsels freshmen and transfers as well as all declared chemistry majors. A 2.00 average is necessary for admission to the major.

COMPOSITION AND READING REQUIREMENT See "Undergraduate Degree Requirements" in this publication.

LANGUAGE REQUIREMENT See opening section under "College of Arts and Sciences" in this publication. Competence in a modern foreign language, particularly German or Russian, through the intermediate level is urged.

MAJOR REQUIREMENTS

Major Courses 15.120, 15.130 General Chemistry I and II; 15.121, 15.131 General Chemistry I and II Laboratory; 15.310, 15.320 Organic Chemistry I and II; 15.312, 15.322 Organic Chemistry I and II Laboratory; 15.350 Quantitative Analysis; 15.351 Quantitative Analysis Laboratory; 15.410, 15.420 Physical Chemistry I and II; 15.411, 15.421 Physical Chemistry I and II Laboratory; 15.460 Instrumental Quantitative Analysis; 15.461 Instrumental Quantitative Analysis Laboratory; 15.550 Advanced Inorganic Chemistry; 15.523 Organic Analysis and Synthesis, or 15.560, 15.561 Biochemistry I and II, and 15.562, 15.563 Biochemistry I and II Laboratory.

Related Courses 51.220, 51.221 Introduction to Physics I and II, 51.222, 51.223 General Physics Laboratory I and II.

Tool Courses 41.111, 41.222, 41.223 Calculus I, II, and III.

ELECTIVES To complete a minimum of thirty-two course units. The student is urged to consider computer science, earth sciences, and biology as electives.

COOPERATIVE WORK-STUDY PROGRAM A cooperative work-study program is part of the program of the Chemistry Department. Work at the research level is available through several cooperating research organizations. The undergraduate student is expected to work full-time for six months and study at the University full-time for five months. A degree may be earned in four years or less. The income received through this program is adequate for self-support through the B.S. degree.

OTHER UNDERGRADUATE DEGREES See Interdepartmental Science section for information concerning requirements for the Bachelor of Science with major in Distributed Sciences.

Graduate Degrees

Candidates for graduate degrees in all academic units must meet the requirements set forth in the University Minimum Standards for Graduate Studies. The requirements appearing below are those of this department and do not relieve degree candidates from compliance with the minimum standards.

Master of Science

MAJOR IN CHEMISTRY

ADMISSION REQUIREMENTS A B.S. in chemistry with a 2.70 cumulative grade point average in chemistry from an accredited college and approval of The American University Chemistry Department faculty.

COURSE REQUIREMENTS A minimum of thirty hours of approved graduate work, including 15.797 Master's Thesis Research (six hours) and 15.700 Seminar in Chemistry (one hour). Before this degree is awarded, the student must have completed (1) 15.600, 15.601 Advanced Physical Chemistry I and II, or 15.520, 15.521 Advanced Organic Chemistry I and II; and (2) 15.551 Topics in Inorganic Chemistry, or 15.560, 15.561 Biochemistry I and II.

Students specializing in organic chemistry or biochemistry must complete 15.522 Interpretation of Spectra.

The entire course of study must constitute a unified program approved by the student's advisor and the chairman of the department. Before the M.S. is awarded, the student is expected to have completed either in graduate study or in an undergraduate program: 15.550 Advanced Inorganic Chemistry, and 15.523 Organic Analysis and Synthesis.

ADVANCEMENT TO CANDIDACY The student is expected to file for advancement to candidacy upon completion of twelve graduate hours.

CUMULATIVE EXAMINATIONS Cumulative examinations described below will satisfy the comprehensive examinations outlined in the minimal standards for graduate study. Each field in chemistry will schedule four such examinations each year. A minimum of three cumulative examinations must be taken. Of these, two must be in the major field and one in a minor field. (This ratio must be maintained in subsequent examinations.) The student should consult with the department chairman about detailed information of the cumulative examination requirements. Fields for the examinations are: 15.001 Biochemistry; 15.002 Organic Chemistry; 15.003 Inorganic Nuclear Chemistry; 15.004 Physical Chemistry; 15.005 Analytical Chemistry.

Each graduate student must take at least one cumulative examination in his or her declared major field prior to completing his or her third semester of full-time graduate study in the department, or prior to completing eighteen hours of course work, whichever comes first. After the first cumulative examination is taken, a minimum of three per year must be taken until all such requirements are completed. For part-time students, after the first cumulative examination is taken a minimum of two per year must be taken until all such requirements are completed. Permission to re-register will not be granted unless this provision is met.

THESIS OPTION The student must present a thesis (six hours) based on laboratory or theoretical research. The thesis must be of publishable quality. The student choosing the thesis option must defend his thesis successfully before his committee.

NON-THESIS OPTION The student must present a scholarly paper (six hours) based on a critical review of the literature. The paper must be of publishable quality. To demonstrate the student's ability to carry on original and independent research, he must submit two avenues of investigation for research and defend these, as well as his paper, successfully before his committee. This option is available only under special circumstances for those who intend to continue work towards the Ph.D.

TOOL OF RESEARCH The student is required to pass an examination or its equivalent in one of the following: Russian, German, French, computer programming, statistics.

OTHER MASTER OF SCIENCE DEGREES See the Interdepartmental Science section concerning requirements for the Master of Science in Science Teaching.

Doctor of Philosophy

MAJOR IN CHEMISTRY

ADMISSION REQUIREMENTS Either (1) a 3.00 cumulative grade point average in chemistry from an A.C.S. accredited college and approval by The American University Chemistry Department faculty, or (2) an M.S. or M.A. in chemistry and approval by The American University Chemistry Department faculty.

COURSE REQUIREMENTS Forty-eight hours research, including two hours of 15.700 Seminar in Chemistry, with the remainder in 15.799 Doctoral Dissertation Research (twenty-four hours) to total seventy-two hours. Those transferring from other universities with an M.S. will have a maximum of six hours transfer credit in master's thesis research accepted towards the hours required for 15.799.

All students must complete the following core courses or submit reasonable approved substitutes: 15.520, 15.521 Advanced Organic Chemistry I and II; 15.551 Topics in Inorganic Chemistry; 15.560, 15.561 Biochemistry I and II; 15.600, 15.601 Advanced Physical Chemistry I and II.

The entire course of study must constitute a unified program approved by the student's advisor and the chairman of the department. Before the Ph.D. is awarded the student is expected to have completed either in graduate study or in an undergraduate program: 15.550 Advanced Inorganic Chemistry, and 15.523 Organic Analysis and Synthesis.

Students specializing in organic chemistry or biochemistry must complete 15.522 Interpretation of Spectra.

ADVANCEMENT TO CANDIDACY The student admitted directly from a bachelor's program is expected to file for advancement to candidacy upon completion of eighteen hours. The student admitted from another university with a M.S. degree is required to file for advancement to candidacy upon completing nine semester hours.

CUMULATIVE EXAMINATIONS Cumulative examinations described below will satisfy the comprehensive examinations outlined in the minimal standards for graduate study. Cumulative examinations will be scheduled annually in each of the five cumulative fields. A minimum of six cumulative examinations must be taken; four must be in the major field and two in a minor field. If additional examinations are needed to meet the point requirements, they must be taken in this same ratio. Details on the point system and the nature of the examinations are available from the departmental office.

The fields for the cumulative examinations are to be selected from: 15.001 Biochemistry; 15.002 Organic Chemistry; 15.003 Inorganic and Nuclear Chemistry; 15.004 Physical Chemistry; 15.005 Analytical Chemistry.

Each graduate student must take at least one cumulative examination in his or her declared major field prior to completing his or her third semester of full-time graduate study in the department, or prior to completing eighteen hours of course work, whichever comes first. After the first cumulative examination is taken, a minimum of three per year must be taken until all such requirements are completed. For part-time students, after the first cumulative examination is taken a minimum of two per year must be taken until all such requirements are completed. Permission to re-register will not be granted unless this provision is met. The student is required to maintain continuous registration.

DISSERTATION The student is expected to have selected his research preceptor during or before his second year.

ORAL EXAMINATION An oral defense of the dissertation will be required. During this examination, the student must present and develop at least one original research idea quite separate from his dissertation. He is expected to defend his research ideas and develop a plan for pursuing it.

Should the research preceptor deem it appropriate, a manuscript suitable for publication in a journal will be required.

TOOLS OF RESEARCH The student is required to pass examinations or their equivalent in two of the following: Russian, German, French, computer programming, statistics.

Courses of Instruction

Undergraduate Courses

15.101 CHEMISTRY AND SOCIETY (c 01.00) Chemistry and human experience. Structure of atom and molecule, bonds and their properties. Organic chemistry and biochemistry. Chemical technology. Poisons. Population, food, and the environment. Energy sources. (Not for Science Majors.)

27.100 EARTH SCIENCES (c 01.00) Survey of earth features and processes: time, weather, climate, oceans, minerals, rocks, landforms, glaciers, volcanoes, earthquakes, origin and development of life, geologic history, resources.

15.120 GENERAL CHEMISTRY I (c 01.00) Atomic theory, electronic configuration, bonding, molecular structure, periodic table, gases. Must be taken concurrently with 15.121. Three hours of lecture and one hour of seminar.

15.121 GENERAL CHEMISTRY I LABORATORY (c 00.25) Laboratory work associated with the theoretical material in 15.120. Must be taken concurrently with 15.120. Three hours of laboratory.

15.130 GENERAL CHEMISTRY II (c 01.00) Kinetics and equilibrium. Thermodynamics. Electrochemistry. Elements and their compounds treated systematically. Must be taken concurrently with 15.131. Three hours of lecture and one hour of seminar. *Prerequisite:* 15.120.

15.131 GENERAL CHEMISTRY II LABORATORY (c 00.25) Laboratory work associated with the material in 15.130. Qualitative inorganic analysis. Must be taken concurrently with 15.130. Three hours of laboratory.

15.160 NATURAL SCIENCES I (c 01.00) Science-content oriented course designed around the Science Curriculum Improvement Study (SCIS), American Association for the Advancement of Science (AAAS), and Conceptually Oriented Program in Elementary Science (COPES) programs for elementary school science. Life and physical sciences. Laboratory work with SCIS materials and kits. Three hours of lecture, one hour of seminar, one hour of laboratory.

15.161 NATURAL SCIENCES II (c 01.00) Continuation of life and physical sciences material from SCIS, AAAS, and COPES programs. Laboratory work with AAAS and COPES materials and kits as well as from Elementary Science Study (ESS) program. Teaching this material in a model school. Three hours of lecture, one hour of seminar, one hour of laboratory.

15.310 ORGANIC CHEMISTRY I (c 01.00) Systematic and theoretical treatment of aliphatic and aromatic hydrocarbons, alcohols, halides, and ethers, ionic and free radical reactions. Stereochemistry. Must be taken concurrently with 15.311. Three hours of lecture and one hour of seminar. *Prerequisite:* 15.130.

15.312 ORGANIC CHEMISTRY I LABORATORY (c 00.50) Laboratory theory and practice in synthesis, separation, and purification of organic compounds. Introduction to modern separation techniques, including thin layer, liquid, and gas chromatography. Use of ultraviolet, infrared, and nuclear magnetic resonance in separation and identification. Must be taken concurrently with 15.310. Four hours of laboratory. *Prerequisite:* 15.130.

15.320 ORGANIC CHEMISTRY II (c 01.00) Aliphatic and aromatic acids, nitrogen compounds, carbonyl compounds, and their derivatives. Introduction to polyfunctional compounds, including amino acids, carbohydrates, lipids, and nucleic acids. Must be taken concurrently with 15.322. Three hours of lecture and one hour of seminar. *Prerequisite:* 15.310.

15.322 ORGANIC CHEMISTRY II LABORATORY (c 00.50) Multi-step syntheses. Synthesis of poly-functional compounds. Introduction to infrared and nuclear magnetic resonance spectral techniques. Qualitative organic analysis. Must be taken concurrently with 15.320. Four hours of laboratory. *Prerequisite:* 15.312.

15.350 QUANTITATIVE ANALYSIS (c 01.00) Theory of acid-base, complexation, precipitation, and redox equilibria. Volumetric and gravimetric analyses. Separations. Statistical analysis of data. Spectrophotometry, potentiometry, and coulometry. Three hours of lecture and one hour of seminar. *Prerequisite:* 15.130, 41.111.

15.351 QUANTITATIVE ANALYSIS LABORATORY (c 00.50) Practice of gravimetric and volumetric analysis. Use of a spectrophotometer, a pH meter and a coulometer. Analysis of mixtures and commercial products. Project work. Must be taken concurrently with 15.350, six hours of laboratory. *Prerequisite:* 15.130, 41.111.

15.380 ELECTRONIC INSTRUMENTATION FOR CHEMISTS (c 00.50) Basic electronic principles; theory and operation of typical laboratory equipment; assembly of simple electronic circuits using tubes and transistors; specially designed for chemistry students. *Prerequisites:* 51.221, 15.130.

15.390 INDEPENDENT READING COURSE IN CHEMISTRY (c 00.25 through 02.00)*

15.410 PHYSICAL CHEMISTRY I (c 01.00) Atomic molecular structure (theoretical and experimental); quantum chemistry. Thermodynamics and spectroscopy. Gases. *Prerequisites:* 15.320, 51.121, 41.222.

15.411 PHYSICAL CHEMISTRY I LABORATORY (c 00.50) Mathematical techniques, high vacuum systems, gamma of gases, heat of combustion, thermocouples, refractometry, fluid viscosity, rates of reactions, electrical conductivity, ionization constants, free energy enthalpy and entropy of an electrochemical reaction. Must be taken concurrently with 15.410.

15.420 PHYSICAL CHEMISTRY II (c 01.00) Chemical kinetics. Liquids and solids. Colligative properties and electrolytes. Electrochemistry, adsorption, catalysis, and polymers. *Prerequisite:* 15.410.

15.421 PHYSICAL CHEMISTRY II LABORATORY (c 00.50) Atomic spectra, Franck-Hertz, oscilloscope, electroscope, Kerr effect, Faraday effect, Hall effect, magnetic susceptibility, dielectric constant, spectrum of Beta-carotene, viscosity of polymers, molecular weight by light scattering, critical surface tension. Must be taken concurrently with 15.420.

15.460 INSTRUMENTAL QUANTITATIVE ANALYSIS (c 01.00) Theory of optical and electroanalytical methods, including spectrophotometry, fluorimetry, spectrography, flame and atomic spectroscopy, selective ion electrodes, polarography, amperometry. Mass spectrometry. Chromatography. Electronics. Analysis of errors. *Prerequisites:* 15.350, 15.410, 41.222.

15.461 INSTRUMENTAL QUANTITATIVE ANALYSIS LABORATORY (c 00.50) Practice in optical, electroanalytical and other instrumental methods. Project work. Must be taken concurrently with 15.460. *Prerequisite:* 15.410, 15.350 and 15.351.

15.490 INDEPENDENT STUDY PROJECT IN CHEMISTRY (c 00.25 through 02.00)*

15.491 COOPERATIVE WORK-STUDY PROGRAM (No credit) Work and study at cooperating research laboratories for six-month periods.

Graduate and Advanced Undergraduate Courses

15.520 ADVANCED ORGANIC CHEMISTRY I (s 03.00) Principles of physical organic chemistry. Bonding and conformational analysis; nucleophilic substitution at carbon; elimination and addition reactions. *Prerequisites:* 15.320 and 15.420.

15.521 ADVANCED ORGANIC CHEMISTRY II (s 03.00) Synthetic and mechanistic aspects of the chemistry of carbonyl compounds; acylations, alkylations, and other condensations; oxidation and reduction reactions. Application of orbital symmetry correlations to organic reactions. *Prerequisite:* 15.520.

* See description under "General Curriculum Information" in this publication.

- 15.522 INTERPRETATION OF SPECTRA (s 03.00)** Practical interpretation of ultraviolet, infrared, nuclear magnetic resonance, and mass spectra for organic chemists and biochemists. Elucidation of structures and kinetic processes.
- 15.523 ORGANIC ANALYSIS AND SYNTHESIS (s 03.00)** Separation and identification of organic mixtures utilizing gas chromatography, IR and NMR spectroscopy; advanced techniques of organic laboratory work including kinetic methods, catalytic reductions, photochemical synthesis, and high pressure work. One hour lecture; eight hours laboratory work per week. *Prerequisite:* 15.320.
- 15.546 THERMODYNAMICS AND STATISTICAL MECHANICS (s 03.00)** Mathematical techniques, laws, free energy functions, empirical methods for evaluating reaction feasibility, mixtures, solutions, statistical thermodynamics. *Prerequisites:* 15.420 and 15.572.
- 15.550 ADVANCED INORGANIC CHEMISTRY (s 03.00)** Electronic structure of atoms. Ionic substances. Chemical bondings. Bond energies. Electronegativity. Covalent radii. Bond and molecular polarity. Molecular symmetry. Coordination compounds. Chemistry of the nontransition elements. Literature of inorganic chemistry. *Prerequisite:* 15.410.
- 15.551 TOPICS IN INORGANIC CHEMISTRY (s 03.00)** Bonding in metals. Magnetochemistry. Dipole moments. Transition metal chemistry including ligand field theory. Jahn Teller effect. Mechanisms of inorganic reactions including the trans effect. Inorganic materials such as boron hydrides, inclusion compounds, inorganic polymers. *Prerequisite:* 15.550.
- 15.560 BIOCHEMISTRY I (s 03.00)** Structure and function of amino acids, proteins, lipids, carbohydrates, and nucleic acids. Enzyme kinetics and bioenergetics. Glycolysis, citric acid cycle, and mitochondrial electron transport and oxidative phosphorylation. Three hours of lecture. *Prerequisite:* 15.320. Undergraduates who elect this course must take both lecture and laboratory for one and one-half course credits. *Prerequisite:* 15.320.
- 15.561 BIOCHEMISTRY II (s 03.00)** Fatty acid oxidation, amino acid degradation, and photosynthesis. Carbohydrate, lipid, amino acid, and mononucleotide biosynthesis. Contractile and motile systems and membrane transport. Molecular genetics and morphogenesis. Three hours of lecture. *Prerequisite:* 15.560. Undergraduates who elect this course must take both lecture and laboratory for one and one-half course credits.
- 15.562 BIOCHEMISTRY I LABORATORY (s 02.00)** Experiments related to the material taught in 15.560, which should be taken concurrently. Four hours of laboratory. *Prerequisite:* or co-requisite, 15.560.
- 15.563 BIOCHEMISTRY II LABORATORY (s 02.00)** Experiments related to the material taught in 15.561 which should be taken concurrently. Four hours of laboratory.
- 15.575 SPECIAL TOPICS IN CHEMISTRY (s 03.00)** Selected topics of an intradisciplinary, interdisciplinary, or multi-disciplinary nature. May be repeated for credit if a different topic is covered. *Prerequisite:* permission of department chairman.
- 15.580 ADVANCED TOPICS IN CHEMISTRY (s 03.00)** Selected topics. Designed for secondary school science teachers. May be repeated for credit if different topic is covered. *Prerequisite:* permission of department chairman.
- 15.589 TECHNIQUES FOR TEACHING LABORATORY SCIENCE TO BLIND CHILDREN (s 03.00)** Practicum experiences including teaching children with existing specially adapted laboratory science equipment. Course also emphasizes design and construction of adapted laboratory equipment. Students learn braille use of brailers and thermoform machine. Backbone of course is mastery of science principles. *Prerequisites:* 15.160 and 15.161, or one year laboratory science, and permission of instructor.
- 15.590 INDEPENDENT READING COURSE IN CHEMISTRY (s 01.00 through 06.00)***
- ## Graduate Courses
- 27.600 ADVANCED TOPICS IN EARTH SCIENCES (s 03.00)** Selected topic or topics in earth sciences. May be repeated for credit, if different topic is covered.

* See description under "General Curriculum Information" in this publication.

- 15.600 ADVANCED PHYSICAL CHEMISTRY I (s 03.00)** Kinetic molecular theory, Boltzmann statistics, transport phenomena, quantum topics (radiation, tunnelling, superconductivity), partition functions, elementary statistical thermodynamics. *Prerequisite:* 15.410.
- 15.601 ADVANCED PHYSICAL CHEMISTRY II (s 03.00)** Molecular electrical properties, intermolecular interactions, molecular magnetic properties, chemical kinetics (fast reactions emphasized), class-selected topics. *Prerequisite:* 15.600.
- 15.608 SPECIAL TOPICS IN PHYSICAL CHEMISTRY (s 03.00)** May be repeated for credit if different topic is covered. *Prerequisite:* 15.600.
- 15.610 ADVANCED INORGANIC ANALYTICAL CHEMISTRY (s 03.00)** Modern analytical methods and separations. Nonaqueous solvents. *Prerequisite:* 15.460.
- 15.618 SPECIAL TOPICS IN ANALYTICAL CHEMISTRY (s 03.00)** May be repeated for credit if different topic covered. *Prerequisite:* 15.610.
- 15.623 ORGANIC PREPARATIONS (s 03.00)** Preparative methods of organic chemistry. Emphasis on techniques: vacuum distillation, chromatography, extractions. Preparations from original literature. One hour of lecture, six hours of laboratory. *Prerequisite:* 15.520.
- 15.628 SPECIAL TOPICS IN ORGANIC CHEMISTRY (s 03.00)** May be repeated for credit if a different topic is covered. *Prerequisite:* 15.521.
- 15.632 HIGH POLYMER CHEMISTRY (s 03.00))** Addition and condensation polymerization kinetics, statistics of linear polymers, thermodynamics of solutions, phase equilibria, characterization (osmotic pressure, light scattering, viscometry). *Prerequisites:* 15.320 and 15.420.
- 15.640 COLLOID AND SURFACE CHEMISTRY (s 03.00)** Application of physiochemical principles of colloidal systems. Solid and liquid surfaces, sorption, large molecules in solution, structure of natural and synthetic colloids. *Prerequisite:* 15.410.
- 15.642 CHEMICAL KINETICS (s 03.00)** Order and molecularity of reactions. Activated complex; theory for elementary reactions. Reactions in solutions and on surfaces. Complex reaction mechanisms. Non-isothermal kinetics. *Prerequisite:* 15.400.
- 15.643 QUANTUM CHEMISTRY I (s 03.00)** The eigenvalue problem. Operators and matrices. Introduction to group theory. Elementary wave mechanics. Atomic spectra. Spin and orbital angular momentum coupling techniques. Molecular orbital theory. *Prerequisite:* 15.600.
- 15.644 QUANTUM CHEMISTRY II (s 03.00)** Theory of electronic, vibrational and spin resonance spectra of aromatic, organometallic, and diatomic molecules. Quantum mechanical calculations using LCAO-MO-SCF techniques. *Prerequisite:* 15.643.
- 15.658 SPECIAL TOPICS IN INORGANIC CHEMISTRY (s 03.00)** May be repeated for credit if different topic covered. *Prerequisite:* 15.551.
- 15.668 SPECIAL TOPICS IN BIOCHEMISTRY (s 03.00)** May be repeated for credit if different topic is covered. *Prerequisite:* 15.561.
- 15.670 ELECTROCHEMISTRY I (s 03.00)** Faraday's law; conductivity; ionization; transport; ion mobility; activity coefficients; Debye-Huckel theory; electromotive force; galvanic cells. *Prerequisite:* 15.420.
- 15.671 ELECTROCHEMISTRY II (s 03.00)** Oxidation-reduction reactions: double layer and electrokinetic phenomena; electrode processes; corrosion; electroplating; batteries; fuel cells; biochemical processes. *Prerequisite:* 15.420, 15.670.
- 15.690 INDEPENDENT STUDY PROJECT IN CHEMISTRY (s 01.00 through 06.00)***
- 15.700 SEMINAR IN CHEMISTRY (s 01.00)** Selected topics. Preparation and presentation of a paper of professional quality. *Prerequisite:* permission of department.
- 15.797 MASTER'S THESIS RESEARCH (s 01.00 through 06.00)**
- 15.799 DOCTORAL DISSERTATION RESEARCH (s 01.00 through 20.00)**

* See description under "General Curriculum Information" in this publication.

Communication

CHAIRMAN Robert O. Blanchard

FULL-TIME FACULTY

Professor R. O. Blanchard, E. L. Bliss Jr., H. D. Crawford (Emeritus), J. A. Hendrix, H. Mowlana, L. W. Wolfson

Associate Professor G. P. Harnden, J. E. Orwant, J. B. Polisky, J. S. Yamauchi

Assistant Professor L. B. Anderson, B. Cherin, D. W. Hearne, J. Keefer, A. K. MacDougall, M. F. Frommer, R. E. Sutton

FIELDS OF STUDY Broadcast journalism, communication and media studies, print journalism, public communication and visual media, and special interdisciplinary and multidisciplinary fields: communication, law, economics, and government; foreign language and communication media; international communication; and mass communication and society.

Undergraduate Degree Programs

Bachelor of Arts

MAJOR IN COMMUNICATION

ADMISSION TO THE MAJOR The department counsels freshmen and transfers. For formal admission to the major, a student must be approved by the department. A strong liberal arts background is considered essential for those seeking admission to the major.

COMPOSITION AND READING REQUIREMENT See "Undergraduate Degree Requirements" in this publication.

LANGUAGE REQUIREMENT See opening section under "College of Arts and Sciences" in this publication.

MAJOR REQUIREMENTS The student is required to take three core courses, three communication and media studies courses and five courses in one track of the major.

Core Courses All of the following courses are required of majors: 17.100 Introduction to Mass Media; 17.101 Writing for Mass Communication; 17.201 Introduction to Communication.

Communication and Media Studies Courses Three courses, to be taken during the junior or senior year, or both, are required from among those that follow. (In some cases, a major may take one course outside the department to satisfy this requirement; authorization for this requires advance permission of the student's advisor and the department's Office of Advising and Counseling.)

(1) Studies of Mass Media History and Development: 17.381 Development of Broadcasting; 17.500 Communication History; 17.558 History of Motion Pictures I; 17.559 History of Motion Pictures II.

(2) Studies of Mass Media Institutions and Functions: 17.503 Mass Media and Society, 17.508 The Media and Government; 17.509 Politics and the Media; 17.510 Congress and the News Media; 17.511 Film and Society I; 17.512 Film and Society II; 17.538 Contemporary Media Issues; 17.542 American Magazines; 17.588 Television Programming.

(3) Studies of Mass Media Controls: 17.501 Legal Aspects of Communication; 17.507 Freedom of Information.

(4) Studies of Communication Theory, Research, and Methods: 17.582 Advances in Communication Research.

(5) Studies of Interpersonal Communication: 17.550 Persuasive Communication; 17.560 Political Communication; 17.565 Organizational Communication; 17.572 Non-Verbal Communication; 17.580 Communication in Small Groups.

(6) Studies of Intercultural Communication: 17.531 International Communication Systems.

Track Courses After completion of the three core course requirements, the student in the junior year, selects one of the following tracks of the major:

(1) Broadcast Journalism Track: Broadcast journalism requires special skills related to news and radio and television production as supplements to a strong liberal arts education. The impact of

the broadcast media today, and the intricacies of film and videotape, demand a new, responsible breed of journalist who appreciates both the technical and editorial aspects of broadcast media. The program, therefore, emphasizes writing, the history of broadcast journalism and its role in society. Advanced students are given regular assignments for daily newscasts and weekly magazine-style programs over the University's WAMU-FM (public radio).

Five courses are required: 17.320 Reporting I; 17.333 Fundamentals of TV and VTR; 17.385 Broadcast Journalism I; 17.528 Broadcast Journalism II; 17.383 Radio Production and Programming, or 17.554 Film Production and Direction I, or 17.584 Television Production and Direction I, or 17.491 Honors Internship (optional).

(2) Print Journalism Track: Print journalism introduces the skills of reporting and editing as professional supplements to a strong liberal arts education. These skills and knowledge are applied toward the development of sound and constructive judgments of what is news and appreciation of the effect news reporting has on society. Advance students in reporting and editing courses are given regular assignment for *The American NewsService* and the community newspaper, *Northwest*. Others are selected for internships.

Five courses are required: 17.320 Reporting I; 17.322 Editorial Policies and Methods I; 17.524 Reporting II; 17.520 Editorial Policies and Methods II, or 17.532 Publication Layout and Design; 17.325 Feature Article Writing, or an independent reporting project, or 17.521 Editorial Interpretation, or 17.343 Photography, or 17.491 Honors Internship (optional).

(3) Public Communication Track: Public Communication prepares students for careers in community relations, law, teaching, personnel, advertising, or communication consulting in business or governmental organizations. Training in public communication includes the study of the communication process as it occurs in the dyadic, small group, public, and organizational contexts. The emphasis is on the development of verbal and analytical skills used in persuasive, political, and interpersonal forms of communication. Finally, the student becomes acquainted with the frontiers of knowledge in the discipline of communication through a study of the most recent advances in communication research.

Five courses are required: 17.550 Persuasive Communication; 17.560 Political Communication; 17.565 Organizational Communication; 17.580 Communication in Small Groups; 17.582 Advances in Communication Research, or 17.491 Honors Internship (optional).

(4) Visual Media Track: The visual media (photography, motion pictures, video tape) are whole disciplines encompassing many crafts which involve a multitude of skills, techniques, processes, and forms. The visual media are also tools, and can be used for many different purposes: to show people, places, and events; to inform and persuade; to tell a story; to entertain; to create an aesthetic expression. The visual media track enables the design of a curriculum with emphasis upon those disciplines chosen by the student and including courses appropriate to his or her interests and purposes.

Five courses are required: (1) any *one* of the following: 17.333 Fundamentals of TV and VTR, 17.343 Photography, or 17.334 Introduction to the Moving Image; (2) any *one* of the following: 23.342 Creative Writing (script writing emphasis), 05.348 Design Techniques I, 05.349 Design Techniques II, 05.350 Design Fundamentals: Color, 05.351 Design Fundamentals: Two-Dimensional, 05.352 Lettering and Typography I, 05.353 Lettering and Typography II, 17.382 Writing for Broadcasting Film, or 17.532 Publication Layout and Design; (3) any *three* of the following: (a) analytical courses: 17.334 Introduction to the Moving Image, 17.381 Development of Broadcasting Film, 17.511 Film and Society: The Documentary Film, 17.512 Film and Society: The Non-Fiction Film, 17.558 History of Motion Pictures I, 17.559 History of Motion Pictures II, 17.588 Television Programming, 23.350 A Critical Approach to the Cinema, 23.351 Film and Literature, 23.352 The National Cinema, or 23.354 Independent Filmmakers; (b) production courses: 17.333 Fundamentals of TV and VTR, 17.334 Introduction to the Moving Image, 17.343 Photography, 17.523 Advanced Photography, 17.554 Film Production and Direction I, 17.555 Film Production and Direction II, 17.584 Television Production and Direction I, or 17.585 Television Production and Direction II.

RELATED COURSES The student is directed toward a broad arts and sciences background through electives. The student may do this by taking a double major.

ELECTIVES To complete a minimum of thirty-two course units.

INTERDISCIPLINARY COMMUNICATION MAJORS

Interdisciplinary programs involve close cooperation between student and major advisor. Overall information and initial advising are available from the Department of Communication Coordinator of Interdisciplinary Studies.

INTERDISCIPLINARY MAJOR IN LAW, PUBLIC POLICY AND SOCIETY WITH TRACK IN COMMUNICATION, LEGAL INSTITUTIONS, ECONOMICS AND GOVERNMENT (CLEG) See description under "Interdisciplinary Studies Program" in this publication.

INTERDISCIPLINARY MAJOR IN MASS COMMUNICATION AND SOCIETY See description under "Interdisciplinary Studies Program" in this publication.

Combined Undergraduate-Graduate Degree Program Bachelor of Arts, Master of Arts

MAJOR IN FOREIGN LANGUAGE AND COMMUNICATION MEDIA

Offered jointly with the Department of Language and Foreign Studies. This three year program combines junior and senior years culminating in a B.A. degree, and a graduate year leading to an M.A. degree. Admission to the undergraduate portion of the program does not guarantee admission to the graduate degree status. The latter is a separate step subject to graduate admission requirements.

ADMISSION TO THE MAJOR Undergraduate students are admitted directly to either the Department of Communication or the Department of Language and Foreign Studies. To be recognized formally as joint majors working toward the M.A., they must achieve senior standing and be accepted by *both* departments for the graduate degree portion of the program.

LANGUAGE REQUIREMENT Before the student can take any of the required courses taught in the appropriate foreign language, he must have completed two college years of that language or its equivalent.

CHOICE OF LANGUAGES French, German, Russian, Spanish.

CHOICE OF MEDIA Broadcast Journalism, Print Journalism, Public Communication, Visual Media.

UNDERGRADUATE MAJOR REQUIREMENTS All students must take (1) 17.100 Introduction to Mass Media and 17.101 Writing for Mass Communication; (2) three Communication and Media Studies courses; (3) two of the following culture courses: 37.110 Introduction to French Culture, 37.120 Introduction to German Culture, 37.130 Introduction to Russian Culture, or 37.140 Introduction to Spanish and Latin American Culture; (4) one of the following: 37.199 International Vocabulary, 30.204 Language and Mind, or 37.300 Introduction to Language; (5) five courses in one of the four communication tracks: Broadcast Journalism, Print Journalism, Public Communication, or Visual Media; (6) five appropriate language courses in Conversation and Composition I and II, Civilization I and II, Topics, or Colloquia.

GRADUATE MAJOR REQUIREMENTS All students must take (1) 17.503 Mass Media and Society, a selected topic in communication or media studies, and 17.531 International Communication Systems; (2) four approved language Colloquia and one Independent Study Project on foreign media (in English); (3) research in 17.760 Methodology of Communication Research, and 37.700 Visiting Scholar Seminar or a Thesis (six hours); (4) a xx.500 level internship in foreign communication (optional); (5) a xx.500 level elective.

Written Comprehensive Examination One comprehensive examination on the appropriate foreign culture and media (in foreign language) is required: 37.002 French Studies; 37.003 German Studies; 37.004 Russian Studies; 37.005 Spanish and Latin American Studies.

Graduate Degree Programs

Candidates for graduate degrees in all academic units must meet the requirements set forth in the University Minimum Standards for Graduate Studies. The requirements appearing below are those of this department and do not relieve degree candidates from compliance with the minimum standards.

ADMISSION A minimum undergraduate grade point average (on a 4.00 scale) of 2.50 (for the last two years of study) and 2.75 in the major is required for admission. Previous professional or campus experience in communication is considered useful, although it is not required. However, all applicants are required to show evidence of professional commitment and career direction related to one of the graduate disciplines.

Admission is for full-time students and for Fall semesters only. The student is expected to complete his or her program (thirty-three semester hours) within a twelve month period.

Note to All Applicants: Address all initial inquiries to the Chairman, the Department of Communication.

Send completed University application forms, transcript, and two references to the Office of Admissions, Financial Aid and Veterans Affairs, Programs and Services, The American University.

In addition, the department requires completion of a separate form to be sent directly to the Chairman, Department of Communication. Attached to this form is a more detailed explanation of the purposes and content of the major programs.

Further inquiries should be addressed to both the Office of Admissions, Financial Aid and Veterans Affairs, Programs and Services, and the Department of Communication. An interview is not required, but may be requested by the department.

Master of Arts

MAJOR IN COMMUNICATION: PUBLIC AFFAIRS JOURNALISM

The program in Public Affairs Journalism seeks to prepare the student for a career—and an eventual position of leadership—in journalism. The program is designed to provide an understanding of policy-making and the issues on which the student will be reporting, a critical approach to government and journalistic practices, and professional training to develop reporting, editing, and managerial skills. The program relies heavily on the resources of Washington for both professional field work and classroom study.

REQUIREMENTS The program requires a total of thirty-three hours to include courses in media and policy studies (fifteen–eighteen hours), the professional sequence (twelve–fifteen hours), and graduate level courses (xx.500 level or above) in approved related area of study (three–nine hours). A thesis is not required, but 17.710 Seminar in Public Affairs and 17.760 Methodology of Communication Research meet the minimum University graduate requirements.

Media and Policy Studies To take a total of fifteen–eighteen hours from: (1) required core graduate seminars: 17.710 Seminar in Public Affairs; 17.720 Seminar in Journalism, or 17.721 Seminar in Broadcast Journalism; 17.760 Methodology of Communication Research; and (2) additional courses (choose two or three with approval of advisor): 17.500 Communication History; 17.501 Legal Aspects of Communication (may be required); 17.503 Mass Media and Society; 17.507 Freedom of Information; 17.508 The Media and Government; 17.509 Politics and the Media; 17.510 Congress and the News Media; 17.538 Contemporary Media Issues; 17.542 American Magazines; 17.690 Independent Study Project in Communication.

Professional Journalism To take a total of twelve–fifteen courses from: (1) print journalism required core field courses: 17.520 Editorial Policies and Methods II; 17.724 Reporting of Public Affairs; 17.636 Government News Reporting; (2) print journalism additional courses (choose one or two with approval of advisor): 17.521 Editorial Interpretation; 17.524 Reporting II (may be required); 17.690 Independent Study Project in Communication; (3) broadcast journalism required core field courses: 17.528 Broadcast Journalism II; 17.554 Film Production and Direction I; 17.724 Reporting of Public Affairs; and (4) broadcast journalism additional courses (choose one or two): 17.521 Editorial Interpretation; 17.524 Reporting II; 17.591 Independent Documentary Project/Internship; 17.782 Broadcasting in the Public Interest.

Related Area of Study Three–nine hours. The student is expected to choose at least one graduate level course (xx.500 level or above) in an area related to communication that has been approved by the department. Study may be in such fields as politics and government, international affairs, economics, urban affairs, or environmental studies. Other areas of the social sciences or humanities may be considered also, if approved.

Students who wish to take six hours in these areas (or, in some cases, nine hours) will be allowed to substitute the added courses for certain communication course requirements as approved by the department.

ACADEMIC STANDING A grade of B (3.00 on a 4.00 scale) or better must be maintained during all graduate work counting toward the degree. The student is required to maintain continuous full-time registration. A grade of B or better is required in 17.710 Seminar in Public Affairs and 17.760 Methodology of Communication Research. See also Maintaining Matriculation information under "Graduate Degree Requirements" in this publication.

COMPREHENSIVE EXAMINATION One comprehensive examination, 17.001 General Communication and Journalism, is required.

MAJOR IN COMMUNICATION: MEDIA STUDIES

In view of the important social, political, and intercultural effects of mass communication, both internationally and domestically, this program emphasizes scholarly appraisal of the media. A thesis is required and is viewed as the focus of the program. Students are expected to work closely with the advisor in developing a course program that will complement and support their thesis work.

REQUIREMENTS (1) Thirty-three semester hours of graduate courses in communication and other areas relevant to the thesis, and (2) one comprehensive examination, 17.003 Mass Media Theory.

Required Courses 17.760 Methodology of Communication Research; 17.797 Master's Thesis Seminar; one course in advanced research methods either outside the department or as a departmental Independent Study Project; and a limited number of courses in professional media skills are available but not required.

MAJOR IN COMMUNICATION: PUBLIC COMMUNICATION

The program in Public Communication is designed to prepare the student for careers in public information, community relations, teaching, personnel management, advertising, and communication consulting in business or governmental organizations. Graduate level training in public communication includes the study of the communication process as it occurs in the dyadic, small group, public, and organizational contexts. The emphasis in this program is on the development of verbal and analytical skills used in persuasive, political, and interpersonal forms of communication. Additionally, the student becomes acquainted with the frontiers of knowledge in the discipline of communication through a study of the most recent advances in communication research.

REQUIREMENTS (1) Thirty semester hours of courses at the graduate level (xx.500 level or above) are required; (2) comprehensive examination, 17.002 Public Communication; and (3) research requirements to be completed with a grade of B or better: 17.582 Advances in Communication Research, and 17.760 Methodology of Communication Research.

Required Courses in Public Communication 17.550 Persuasive Communication; 17.560 Political Communication; 17.565 Organizational Communication; 17.580 Communication in Small Groups; 17.582 Advances in Communication Research; 17.760 Methodology of Communication Research.

Optional Courses 17.572 Non-Verbal Communication; 17.691 Graduate Internship (Public Communication). The student will select courses to meet remaining degree requirements in consultation with the Public Communication Graduate Program Advisor.

INTERDISCIPLINARY MAJOR IN FILM

Applicants accepted for graduate study in film choose a program which leads to an M.A. with an interdisciplinary major in Film. This interdisciplinary program is not a fixed curriculum. Courses are selected from the offerings of a number of departments within the University, according to the student's interests. Courses directly related to film which are presently available within the College of Arts and Sciences for graduate credit are given below.

COMMUNICATION COURSES 17.554 Film Production and Direction I; 17.555 Film Production and Direction II; 17.511 Film and Society: The Documentary Film; 17.512 Film and Society II: The Non-Fiction Film; 17.558 History of the Motion Picture I; 17.559 History of the Motion Picture II; 17.690 Independent Study Project in Communication.

LITERATURE COURSES 23.650 Studies in Cinema: Critical Approach to the Cinema; 23.651 Studies in Cinema: Film and Literature; 23.652 Studies in Cinema: National Cinema; 23.653 Studies in Cinema: Major Filmmakers; 23.654 Independent Filmmakers.

RELATED COURSES A student in this interdisciplinary program selects from among the above two groups of courses and then augments this selection with related courses usually in acting, directing, music, television, graphic arts, literature, creative writing, and the social sciences. The selections depend on the student's interests. A program of courses is designed to total twenty-four semester hours with nine additional hours devoted to a Master's Thesis Project.

MAJOR IN INTERNATIONAL COMMUNICATION

This program is administered jointly by the School of International Service and the Department of Communication. See the description under "School of International Service" in this publication.

Courses of Instruction

Undergraduate Courses

17.100 INTRODUCTION TO MASS MEDIA (c 01.00) An action as well as conceptual study of mass media. History, social effects, economic and legal restraints, and current practices. Project approach in working sections. Required of all department majors. Laboratory fee.

17.101 WRITING FOR MASS COMMUNICATION (c 01.00) Basic written techniques of mass communication. Intensive practice in forms of writing for mass media. Three-hour weekly laboratory arranged. Required of all department majors. *Prerequisite:* 17.100.

17.110 PUBLIC SPEAKING (c 01.00) Principles of public speaking, sound standards for evaluating speeches, and practice in preparation and presentation of several types of public address.

17.201 INTRODUCTION TO COMMUNICATION (c 01.00) Current human communication theory from disciplinary points of view; how communication affects individuals in personal and social lives. Required of all department majors.

17.320 REPORTING I (c 01.00) Fundamentals of news gathering, news writing and news judgment for all media; study of news sources, field work, research and interview techniques; supervised writing for publication in *Northwest* and *The American NewsService*. Laboratory fee. *Prerequisite:* 17.101.

17.322 EDITORIAL POLICIES AND METHODS I (c 01.00) Instruction and practice in editing for media. Copy editing and editorial judgment. Use of wire copy. Laboratory fee. *Prerequisite:* 17.320.

17.325 FEATURE ARTICLE WRITING (c 01.00) Study of various types of feature articles for newspapers, syndicates, magazines, and specialized publications; practice in research, interviewing, writing; marketing and publication of articles in *Northwest* and *The American NewsService*. Laboratory fee. *Prerequisite:* 17.101.

17.333 FUNDAMENTALS OF TV AND VTR (c 01.00) Basic principles and projects in television in TV studio of broadcast center. Students serve as crew for television production and direction classes. Each student writes, directs, and produces original five minute production. *Prerequisites:* 17.100 and 17.101.

17.334 INTRODUCTION TO THE MOVING IMAGE (c 01.00) Provides basic introduction to critical study of moving image in film and television through production projects in 8mm. film and $\frac{1}{2}$ " video tape. Laboratory fee.

17.343 PHOTOGRAPHY (c 01.00) Photographic fundamentals through intensive use of camera in assignment situations and laboratory work in film processing and photographic printing of those assignments. Three-hour weekly laboratory arranged. Laboratory fee. *Prerequisite:* department permission.

17.381 DEVELOPMENT OF BROADCASTING-FILM (c 01.00) Comprehensive study of trends and historical precedents in broadcast and film industries of United States with emphasis on control, financial, governmental, program, and technical factors. *Prerequisite:* permission of the department.

17.382 WRITING FOR BROADCASTING FILM (c 01.00) Techniques of script writing for broadcast. Students write and criticize assignments.

17.383 RADIO PRODUCTION AND PROGRAMMING (c 01.00) Radio programs and their determinants. Students produce, direct and criticize assignments.

17.384 TV STUDIO OPERATIONS (c 01.00) Principles and practice in operation of television studio equipment. Laboratory. *Prerequisite:* 17.381.

17.385 BROADCAST JOURNALISM I (c 01.00) Competence in writing and editing news for broadcast. Actual broadcast of news programs over WAMU-FM (public radio). First-hand reporting with tape recorders. Emphasis on responsibility in news preparation. *Prerequisite:* permission of instructor.

17.390 INDEPENDENT READING COURSE IN COMMUNICATION (c 00.25 through 02.00)*

17.490 INDEPENDENT STUDY PROJECT IN COMMUNICATION (c 00.25 through 02.00)*

17.491 UNDERGRADUATE HONORS INTERNSHIP (c 01.00 through 02.00) Professional communication work in off-campus organization appropriate to the student's department sequence, which

* See description under "General Curriculum Information" in this publication.

provides the student with experience not otherwise available in the curriculum. Open to undergraduate majors who have completed with distinction most or all of their sequence requirements. Recommendation of advisor and approval of department chairman.

Graduate and Advanced Undergraduate Courses

17.500 COMMUNICATION HISTORY (s 03.00) Development of newspapers, magazines, radio, television, and motion pictures, and their influence on contemporary ethics and practices.

17.501 LEGAL ASPECTS OF COMMUNICATION (s 03.00) Current legal problems; theory of controls in journalism, visual communication, television and radio. Analysis of libel suits, copyrights, infringement. No previous knowledge of law required. *Prerequisite:* Permission of department.

17.503 MASS MEDIA AND SOCIETY (s 03.00) Role of newspapers, magazines, radio, television and motion pictures, and their impact on society. *Prerequisite:* permission of instructor.

17.507 FREEDOM OF INFORMATION (s 03.00) Investigation of access and barriers to information at local, state, national and international levels. Rights and responsibilities of communication media, government agencies, and the public.

17.508 THE MEDIA AND GOVERNMENT (s 03.00) Studies Washington press corps-official relations, the quality of government news reporting and its impact on national policy, issues of ownership and control of media, and journalists' rights and responsibilities. *Prerequisite:* permission of instructor.

17.509 POLITICS AND THE MEDIA (s 03.00) Study of role and impact of mass media in electoral process. Includes examination of candidates' use of media to get elected, and press reporting and analysis of politics.

17.510 CONGRESS AND THE NEWS MEDIA (s 03.00) Analysis of role of news media in federal legislative process and role of Congress in defining and determining freedom of press. Every other class meets on Capitol Hill.

17.511 FILM AND SOCIETY I: THE DOCUMENTARY FILM (s 03.00) Historical development of the documentary tradition in film including critical analysis and evaluation of its use in modern society. Laboratory fee.

17.512 FILM AND SOCIETY II: THE NON-FICTION FILM (s 03.00) Survey and analysis of the independent, industrial, educational, experimental, and minority group short film. Special focus will be on its development and its role and use in society today in communications and education. Laboratory fee.

17.520 EDITORIAL POLICIES AND METHODS II (s 03.00) Advanced training to develop editorial judgment and skills in processing material for actual publication; study of problems and practices in making assignments, handling departments, and dealing with wire copy as editors for *Northwest* newspaper and *The American NewsService*. Four hour laboratory arranged. Laboratory fee. *Prerequisite:* 17.322.

17.521 EDITORIAL INTERPRETATION (s 03.00) Supervised writing of various types of editorials and opinion columns on current subjects; analysis of editorials and other commentary; editorial page policies and practices. *Prerequisite:* permission of instructor.

17.523 ADVANCED PHOTOGRAPHY (s 03.00) Advanced work in photography utilizing the photograph as a means of communication through media presentation. Includes extensive assignment situations throughout the Washington, D.C. area. Spring semester includes photographic work in London, England. *Prerequisites:* 17.343 and permission of department. Laboratory fee.

17.524 REPORTING II (s 03.00) Advanced training in writing news for actual publication, as staff writers for *The American NewsService*, with emphasis on specialized areas of coverage; student assignments in selected fields for one day a week. Laboratory fee. *Prerequisite:* permission of instructor.

17.526 ADVANCED FEATURE ARTICLE WRITING (s 03.00) Principles and methods of writing feature stories. Individual attention to problems. Students submit articles for actual publication through *The American NewsService*. *Prerequisite:* 17.325.

17.528 BROADCAST JOURNALISM II (s 03.00) Examination of broadcast practices with emphasis on network evening news. Production, investigative reporting for WAMU-FM (public radio). Also production of news broadcasts for closed circuit television. Broadcast journalists participate in informal seminars. *Prerequisites:* 17.385 and permission of instructor.

17.531 INTERNATIONAL COMMUNICATION SYSTEMS (s 03.00) Communication of news and opinion among nations and under varying types of social, political, and economic systems. Uses of mass media in national development; chief patterns of mass communication throughout the world.

17.532 PUBLICATION LAYOUT AND DESIGN (s 03.00) Layout, typography, design and printing in planning and production of newspapers, magazines, books, brochures, and folders. *Prerequisite:* permission of department.

17.538 CONTEMPORARY MEDIA ISSUES (s 03.00) Examination of investigative reporting, the "new journalism" and other controversial developments affecting news media. Assessment of how well press informs public.

17.542 AMERICAN MAGAZINES (s 03.00) Survey of contemporary popular magazines. Critical analysis of their editorial and advertising content. Magazines impact on American society.

17.546 AUDIO-VISUAL COMMUNICATION (s 03.00) Problems of communicating through modern audio-visual media. Emphasis upon communication studies and findings in perception, learning, attention and related areas. Students prepare materials and gain experience with audio-visual devices and systems.

17.550 PERSUASIVE COMMUNICATION (s 03.00) Contemporary concepts, theories, research findings, and case studies representative of current trends in persuasive communication.

17.554 FILM PRODUCTION AND DIRECTION I (s 03.00) An intensive introduction to all aspects of film production and direction, including writing, cinematography, editing, and criticism of motion pictures. *Prerequisite:* either 17.333, 17.334, or 17.343 or permission of instructor.

17.555 FILM PRODUCTION AND DIRECTION II (s 03.00) Advanced level projects in film production and direction. *Prerequisite:* 17.554 or permission of instructor.

17.558 HISTORY OF MOTION PICTURES I (s 03.00) Origins and development of the motion picture from the nineteenth century to 1940. International survey from an American viewpoint will be stressed. Films will be viewed, discussed, and criticized. Laboratory fee.

17.559 HISTORY OF MOTION PICTURES II (s 03.00) History and development of motion picture from 1940 to present. International survey from American point of view. Laboratory fee.

17.560 POLITICAL COMMUNICATION (s 03.00) Critical analysis and discussion of significant contemporary political communication. Practical experience in preparation of various forms of political communication.

17.561 ADVANCED WRITING FOR BROADCASTING FILM (s 03.00) Writing and criticism of documentary, dramatic and other types of complex programs for television and film. *Prerequisite:* permission of department.

17.565 ORGANIZATIONAL COMMUNICATION (s 03.00) Principles of communication theory within organizational context. Practical application of communication skills appropriate to various organizational settings.

17.572 NON-VERBAL COMMUNICATION (s 03.00) Current theory and research in influence of body language, spatial relationships, objects, clothes, architecture, touch, and time on human interaction. Ample opportunities for awareness, analysis, and application of learned principles of non-verbal communication through in-class exercises, simulations, video-taped feedback, and off-campus field research.

17.580 COMMUNICATION IN SMALL GROUPS (s 03.00) Current theory on leadership, problem-solving, decision-making, group pressure to conformity, deviant behavior, cohesion, communication networks, and discussion techniques in small group context. Opportunities for practical application of learned principles through video-taped feedback, role-playing exercises, and field research.

17.581 BROADCASTING IN EDUCATION (s 03.00) Effects which broadcasting and related media have on an American education system whose students exist in media-saturated environment. Also includes consideration of roles, organization, and objectives of formal instructional television; and of recently-developed Public Broadcasting System.

17.582 ADVANCES IN COMMUNICATION RESEARCH (s 03.00) Problems in the application of the experimental method of researching selected areas of interpersonal, small group, public, non-verbal, intercultural, political, persuasive, and mass communication. Analysis of experimental studies in communication; opportunities to conduct original mini-experiments in selected areas of communication.

17.584 TELEVISION PRODUCTION AND DIRECTION I (s 03.00) Student projects in television directing, producing, and serving as talent for other students' productions. Students will review projects of other students. *Prerequisite:* 17.333.

17.585 TELEVISION PRODUCTION AND DIRECTION II (s 03.00) Advanced training in longer, more sophisticated television programs. *Prerequisites:* 17.584 and permission of instructor.

17.588 TELEVISION PROGRAMMING (s 03.00) Principles of planning radio and television programs and program schedules. *Prerequisite:* 17.381.

17.589 SEMINAR IN BROADCASTING AND FILM (s 03.00) In-depth study of certain areas and problems in broadcasting and film not covered in regular sequence of courses. Topics will vary from semester to semester. May be repeated for credit when topics vary. *Prerequisite:* permission of department.

17.590 INDEPENDENT READING COURSE IN COMMUNICATION (s 01.00 through 06.00)*

Graduate Courses

17.636 GOVERNMENT NEWS REPORTING (s 03.00) Field work coverage of federal, state, and local government. Washington used as laboratory. Intensive work on in-depth reporting, writing, editing. One full day a week. *Prerequisite:* permission of instructor.

17.690 INDEPENDENT STUDY PROJECT IN COMMUNICATION (s 01.00 through 06.00)*

17.691 GRADUATE INTERNSHIP (s 01.00 through 03.00) Professional communication work in an off-campus organization, appropriate to student's department sequence, which provides student with experience not otherwise available in curriculum. Open to undergraduate majors who have completed with distinction most or all of their sequence requirements. Recommendation of advisor and approval of department chairman.

17.710 SEMINAR IN PUBLIC AFFAIRS (s 03.00) Intensive study of current issues and making of public policy in Washington with special emphasis on role of media. Includes major field research project. *Prerequisite:* permission of instructor.

17.720 SEMINAR IN JOURNALISM (s 03.00) Direction of media and problems they face. Emphasis on media criticism and individual or team research projects. *Prerequisite:* permission of instructor.

17.721 SEMINAR IN BROADCAST JOURNALISM (s 03.00) Problems, policies, and practices of the broadcast media. Emphasis on broadcast production, individual research. *Prerequisite:* permission of instructor.

17.724 REPORTING OF PUBLIC AFFAIRS (s 03.00) Advanced training in writing news for publication with emphasis on current major issues. One full day a week. Conducted with Seminar in Public Affairs (17.710). *Prerequisite:* permission of instructor.

17.760 METHODOLOGY OF COMMUNICATION RESEARCH (s 03.00) Introduction to the logic of scientific inquiry and to the strategy and content of research in mass communication. Training in quantitative techniques for professional communicators. *Prerequisite:* permission of instructor.

17.782 BROADCASTING IN THE PUBLIC INTEREST (s 03.00) Responsibilities of the broadcaster in terms of "public interest, convenience, and necessity," comparison of U.S. and foreign programming. *Prerequisite:* permission of instructor.

17.797 MASTER'S THESIS SEMINAR (s 01.00 through 06.00) For students writing thesis in communication. Do *not* register without formal approval of thesis topic by department faculty.

Economics

CHAIRMAN Howard Wachtel

FULL-TIME FACULTY

Professor N. Barrett, W. D. Bowles, E. Correll (Emeritus), T. Dernburg, W. Hunsberger, F. K. Mann (Emeritus), C. T. Morris, F. Tamagna, V. Tanzi, A. Waterston, J. Weaver

Associate Professor R. Boddy, G. Iden, R. Müller, L. Sawers, H. Wachtel

Assistant Professor I. Broder, D. Kotz, J. Lyons, J. Wisman

Visiting Professor E. J. Mishan

FIELDS OF STUDY Price and income theory, contemporary economic theory, history of economic thought, economic history of Europe, economic history of the United States, history of economic

*See description under "General Curriculum Information" in this publication.

development, theory of political economy, economic growth and development, economic development policy (not open to students in the department), labor economics, international economics, international economic policy (not open to students in the department), comparative economic systems and Soviet-type economics, monetary economics, public finance and fiscal policy, mathematical economics, econometrics, quantitative method in economics (open only to M.A. candidates), urban economics.

Undergraduate Degree Program

Bachelor of Arts

MAJOR IN ECONOMICS

ADMISSION TO THE MAJOR The department counsels freshmen and transfer students. Formal admission to the major requires a 2.00 average and approval of the department Undergraduate Advisor.

COMPOSITION AND READING REQUIREMENT See "Undergraduate Degree Requirements" in this publication.

LANGUAGE REQUIREMENT See opening section under "College of Arts and Sciences" in this publication.

MAJOR REQUIREMENTS

Required Courses 19.100 Introduction to Economics; 19.300 Price Theory and Its History; 19.301 Income Theory and Its History.

Elective Courses Four courses from departmental offerings, xx.300 level or above. Courses numbered 19.390 or 19.396 can be used only with the permission of the Undergraduate Advisor.

Quantitative Courses 19.310 Introduction to Econometrics, or 69.202 Basic Statistics is required. Students are urged to take 19.305 Introduction to Quantitative Economics.

Related Courses Four courses from the xx.300 level or above selected from the following fields, with not more than three courses in any one: anthropology, business administration, education, government, history, international relations, mathematics, philosophy, psychology, and sociology.

Note: Grade of C or better is required in all major, tool, and related courses. Students planning to continue on to graduate work in economics are advised to take mathematics as a related field.

ELECTIVES To complete a minimum of thirty-two courses.

Students majoring in economics are required to complete a minimum of seven courses in economics. All xx.500 level courses in the department are open to undergraduates who have the necessary prerequisites. A student should not use his electives entirely in his own field. For some purposes, 10.306 and 10.307, Accounting I and II, are useful electives.

Students interested in political economy can develop a concentration by including as part of their electives courses such as 19.315 Urban Political Economy, 19.207 Political Economy of Economic Development, and 19.302 Alternative Economic Theories and Institutions.

The Department of Economics is in the process of designing a program in applied economics to serve the needs of students planning a professional career in applied economics. The major thrust of the program will be mastering the application of economic theory and applying it to a variety of different problem areas, *i.e.*, environment, health care, etc. The program will provide the flexibility needed to allow students, as part of their academic program, to work in a job related to their field of interest and to obtain academic credit for work experience.

JOINT MAJORS Because the department requires only eight courses in economics (and statistics), a student frequently can work out a double or joint major with other fields such as business, communications, political science, international relations, history, etc. See the department's Undergraduate Advisor for details.

HONORS Students may sign up for 19.498 Economics Honors I and 19.499 Economics Honors II. In these courses the student shall undertake individual readings and research projects under the guidance of a faculty member. A student can graduate "with honors in Economics" upon completion of these courses. For eligibility requirements and further details see the department's undergraduate advisor.

The Washington Economic Policy Semester

GENERAL DESCRIPTION The Washington Economic Policy Semester is an intensive examination of the policy making process in Washington, particularly as it relates to economic policy. The program is designed for students with an interest in the practical as well as the theoretical. The semester includes international as well as domestic economic policy—the macro as well as micro dimensions of such policy.

ADMISSION The Washington Economic Policy Semester is designed for undergraduate students with an interest in policy issues who are in the upper division level in their major field of study. Student applicants must possess a cumulative grade point average no lower than the line between B and C (1.50 on a 3.00 scale; 2.50 on a 4.00 scale; and 79.50 on a 100.00 scale; etc.). For information, contact the Director, Washington Semester Programs, School of Government and Public Administration, The American University, Washington, D.C., 20016.

The Program of Study

THE SEMINAR The Washington Economic Policy Semester includes an intensive seminar (two course units) which will encompass a theoretical analysis of the economic problems covered; extensive readings; on-site discussions with economic policy decision makers; preparation of papers; presentation of alternative paradigms used to understand economic policy. The students will earn two course units in the seminar (equivalent to eight semester hours).

THE INTERNSHIP OR INDEPENDENT RESEARCH PROJECT In addition to the seminar, the semester will include a choice between an internship (one course unit) in a private or governmental agency or an intensive research project. Students opting for the internship will have the opportunity to gain first hand experience and pursue directed research within an organization directly involved in the field of economic policy. Students who elect the independent research project option will work in consultation with a faculty member of the Department of Economics.

COURSE WORK An elective (one course unit) chosen from courses currently offered by The American University. With a wide selection available each student may pursue his or her own interests or work toward the fulfillment of his or her home school's requirements.

Graduate Degree Programs

Candidates for graduate degrees in all academic units must meet the requirements set forth in the University Minimum Standards for Graduate Study. The requirements appearing below are those of this department and do not relieve degree candidates from compliance with the minimum standards.

Master of Arts

MAJOR IN ECONOMICS

ADMISSION See "Admission to Graduate Study" in this publication. The Graduate Record Examination is recommended. In general, an overall grade point average of B (3.00 on a 4.00 scale) in the last two years of undergraduate work is required.

COURSE REQUIREMENTS Minimum of thirty hours of *approved graduate work* is required. This must include 19.500 Price Theory and 19.501 Income Theory I with grades of B or better. 19.522 Econometrics I or an approved substitute is required. Either 19.305 Introduction to Quantitative Economics or 19.521 Quantitative Economic Analysis is required. 19.305 is not a graduate course and will not count toward the thirty hours of graduate work. Students who have not completed the undergraduate prerequisites to 19.500 Price Theory and 19.501 Income Theory I may take 19.603 Introduction to Economic Theory as prerequisite to both graduate theory courses. 19.603 will not count as part of the thirty hour degree program, since it is designed for students without undergraduate backgrounds in economics.

Candidates for the M.A. with major in Economics must pass the following comprehensive examinations: (1) A written examination in economic theory. This examination includes both price and income theory. A student who has received grades of A in both graduate theory courses may waive this examination. (2) A written examination in one of the Graduate Comprehensive Examination Fields listed below. The student must take both examinations during the same examination period.

Students must either complete a master's thesis, two non-thesis seminars, two independent research projects which have been approved as a non-thesis option, or one seminar and one independent research project.

MAJOR IN APPLIED ECONOMICS

The M.A. in Applied Economics, offered jointly by the Department of Economics and the College of Continuing Education, is designed to serve the professional needs of working people seeking to further their education in their career field. The program is directed towards the economists, program analysts, statisticians, and other persons interested in the application of economic theory to the analysis of current problems. It provides the flexibility needed to enable the fully employed student to meet the requirements without sacrificing quality education.

Courses are taught primarily by full-time faculty of the Department of Economics. In addition, experts in various specialized fields are brought in as visiting speakers and teachers. For example, 19.783 Seminar in National Economic Policy is taught on a rotating basis by senior economists in policy making positions.

Courses are scheduled on a flexible basis, and many are held off-campus. Some courses may be given on weekends. Others may be offered on a very intensive basis, e.g., background reading followed by a week of intensive lectures and discussion, followed by more background reading, and another week of intensive lectures, discussions, and examinations. Every effort is made to schedule courses in an educationally sound manner which is also convenient for people who work full-time and who may also be in and out of Washington for certain periods of time.

A candidate applying for admission to the M.A. Applied Economics program must have a bachelor's degree from an accredited college or university and must have a 2.50 cumulative grade point average, based on a 4.00 system, in the undergraduate program. Forms for application to the graduate program and the required letters of recommendation forms may be obtained from the Office of Admission, Financial Aid and Veterans Affairs, Programs and Services.

Provisional admission may be granted to those who do not meet the minimum standards for admission. This may be accomplished by demonstrated academic performance in the completion of the Graduate Certificate Program in Applied Economics (see below).

Each student will be assigned to a faculty advisor who will outline and approve the student's program. Courses and their sequence will be planned. The program must be completed with at least a B average for all graduate courses taken.

In addition to the prerequisites, the program consists of at least thirty-three hours of graduate course work. A student must complete fifteen hours of core requirements together with six hours of course work within one field of concentration and twelve hours of electives. Six hours of research seminar or independent research with a grade of B or better are required. The required 19.783 Seminar in National Economic Policy must be supplemented by an additional three hours of seminar work or three hours of independent research to fulfill the non-thesis option. As a final requirement, students will be required to pass one written comprehensive in their field of concentration.

FOUNDATION COURSES IN ECONOMICS 19.100 Introduction to Economics; 19.300 Price Theory and Its History; 19.301 Income Theory and Its History, or 19.603 Introduction to Economic Theory (may be substituted for 19.300 and 19.301); 19.310 Introduction to Econometrics, or 69.202 Basic Statistics. Waiver of these prerequisites may be granted for well qualified persons with comparable prior education or experience. No graduate credit will be allowed for these courses.

REQUIRED COURSES 19.500 Price Theory; 19.501 Income Theory; 19.503 Introduction to Political Economy; 19.522 Econometrics I; 19.783 Seminar in National Economic Policy (may be taken twice). Total of fifteen semester hours.

FIELD OF CONCENTRATION To total six semester hours

ELECTIVES To total twelve semester hours.

GRADUATE CERTIFICATE IN APPLIED ECONOMICS The College of Continuing Education may offer admission to a graduate certificate program as an alternative for the applicant who applies for, and is not accepted for admission to a graduate degree program. If a student who does not meet the University's requirements for graduate admission completes twelve semester hours of the graduate certificate program with at least a 3.50 grade point average, he will be considered for admission to the M.A. in Applied Economics. For further information on this certificate program, see description under "College of Continuing Education" in this publication.

Doctor of Philosophy

MAJOR IN ECONOMICS

ADMISSION See "Admission to Graduate Study" in this publication. The Graduate Record Examination is recommended. In general, overall grade point averages of B (3.00 on a 4.00 scale) in the last two years of undergraduate work and a B+ (3.50) in previous graduate work are required.

GENERAL OBJECTIVES The Department of Economics offers a Ph.D. in Economics with programs of study in Economics and Political Economy. The Doctor of Philosophy degree prepares persons for teaching in institutions of higher learning, for independent research, and for effective service in a leadership capacity in either private business or government. The program requires completion of tool requirements, comprehensive examinations, and an original research project presented in a dissertation.

COURSE REQUIREMENTS Minimum of seventy-two hours of approved graduate work is required, including 19.799 Doctoral Dissertation Seminar (up to twenty-four hours). Students entering the Ph.D. program with M.A. degrees earned elsewhere must complete *at least* thirty hours of graduate work in residence plus twelve hours of dissertation credit.

TOOL OF RESEARCH The tool of research requirement may be fulfilled by completing the following courses with a grade of B or better in each course.

Program in Economics 19.521 Mathematical Economic Analysis; 19.522 Econometrics I; 19.523 Econometrics II, or an alternative tool which may aid the graduate student in further research into economic problems, e.g., 19.704 Seminar in Economic Thought, a language, or an alternative research methodology; 19.508 European Economic Development; 19.507 Economics of American Development.

Program in Political Economy 19.305 Introduction to Quantitative Economics, or 19.521 Mathematical Economic Analysis (which is recommended for students with equivalent of 19.305); 19.522 Econometrics I; 19.508 European Economic Development; 19.507 Economics of American Development.

The Ph.D. student (in order to further familiarize himself or herself with research techniques and methods and the practical problems involved in research) will be required to have at least two courses of individual research. The individual research project requires the willingness of a faculty member to approve the proposed research and to serve as an advisor to the student.

In addition, candidates for the Ph.D. are expected to gain experience in classroom teaching, either through direct responsibility for teaching introductory level courses or by serving as discussion leaders and graders for large classes supervised by faculty members. This means that all full-time Ph.D. students should have teaching experience during some part of their program.

COMPREHENSIVE EXAMINATIONS An oral qualifying examination will be required after completion of twenty-four semester hours and no later than one semester before comprehensives are taken. This examination will be at the intermediate level in economic theory and at the introductory level in all other areas of economics. In addition, the student will be examined on comprehensive fields.

Program in Economics Four examinations are required: (1) Contemporary Economic Theory: Price (suggested courses: 19.703 Microeconomic Analysis; 19.770 Seminar in Economic Theory: Price; 19.504 Economic Thought); (2) Contemporary Economic Theory: Income (suggested courses: 19.701 Income Theory; 19.771 Seminar in Economic Theory: Income; 19.504 Economic Thought); (3, 4) two elective fields (In general, at least two courses are suggested for each field. Students should consult the faculty in their fields for specific courses. History of Economic Development may be taken as a field.).

Program in Political Economy Four examinations are required: (1) Theory of Political Economy I (suggested courses: 19.506 Theory of Political Economy; 19.706 Seminar in Political Economy); (2) Theory of Political Economy II (suggested courses: 19.701 Income Theory; 19.703 Microeconomic Analysis; 19.504 Economic Thought; 19.704 Seminar in Economic Thought); (3, 4) two elective fields (In general, at least two courses are suggested for each field. Students should consult the faculty in their fields for specific courses. History of Economic Development may be taken as a field.).

Courses associated with the theory comprehensives (in both Economics and Political Economy) are *recommended*, but do not have to be taken for credit in order to take comprehensives. This decision is at the student's discretion *in consultation with an advisor*. The student is responsible

for learning the material covered by the recommended courses for comprehensive examinations. The student (at his or her discretion) has the privilege of taking one screening examination in each course at any time before comprehensives are taken. At the option of the faculty member, this examination may be the final examination in the course.

The student can elect to spread the comprehensive examinations over two semesters. If this is done, the two theory examinations must be taken in the same semester, and the two elective field examinations should be taken in the next semester.

Tool of research courses should be completed before comprehensive examinations are taken. Students desiring an exception to this rule should consult with the Ph.D. advisor.

COMPREHENSIVE EXAMINATION FIELDS 19.01A Contemporary Economic Theory: General (required of M.A. students); 19.01B Contemporary Economic Theory: Price (required of Ph.D. students); 19.01C Contemporary Economic Theory: Income (required of Ph.D. students); 19.002 History of Economic Thought; 19.003 Economic History of Europe; 19.004 Economic History of the United States; 19.005 History of Economic Development; 19.006 Theory of Political Economy I; 19.06A Theory of Political Economy II; 19.007 Economic Growth and Development; 19.07A Economic Development Policy (not open to students in Department of Economics); 19.008 Manpower and Human Resources; 19.009 International Economics; 19.09A International Economic Policy (not open to students in Department of Economics); 19.011 Comparative Economic Systems and Soviet-Type Economies; 19.013 Monetary Economics; 19.014 Public Finance and Fiscal Policy; 19.015 Urban Economics; 19.016 Mathematical Economics; 19.017 Econometrics; 19.018 Quantitative Methods in Economics (open only to M.A. candidates).

DISSERTATION The student obtains approval for his dissertation topic from an interested faculty member in the field of the dissertation who becomes chairman of the dissertation committee. This committee, especially the chairman, supervises the preparation of the dissertation and reviews it upon completion. An oral examination on the dissertation is given after the complete dissertation is submitted.

HONORS The Simon Naidel prize of \$50 is awarded annually to the graduate student in economics who has written the most outstanding comprehensive examination, as judged by the faculty of the Department of Economics.

The Frank Tamagna prize of \$100 is awarded annually to an outstanding graduate or undergraduate student in monetary economics as judged by those professors teaching monetary economics.

The Fritz Karl Mann Fund is a loan fund for graduate or undergraduate students in economics. The loan fund is administered by the chairman of the department.

Courses of Instruction

Undergraduate Courses

19.100 INTRODUCTION TO ECONOMICS (c 01.00) Survey of basic economic issues and policy. Institutional framework. National income, employment, inflation, and growth. Business cycles and national economic policy. Resources and resource allocation, poverty, public finance.

19.110 SELECTED TOPICS IN ECONOMICS (c 01.00) Application of economic principles to topics in international trade and finance, national economic policy, theory of the firm. Subject matter and prerequisites vary. See semester *Schedule of Classes*.

19.300 PRICE THEORY AND ITS HISTORY (c 01.00) Theory of relative prices of commodities and productive services under perfect and imperfect competition. Theory of the firm and theory of consumer demand. In addition, history of price theory traced through writing of Smith, Ricardo, Marshall, Walras, to date. *Prerequisite:* 19.100.

19.301 INCOME THEORY AND ITS HISTORY (c 01.00) Basic concepts and theory of income, employment and economic growth. In addition, history of income theory traced through Ricardo, Wicksell, Keynes, to date. *Prerequisite:* 19.100.

19.302 ALTERNATIVE ECONOMIC THEORIES AND INSTITUTIONS (c 01.00) Analysis of theories of Karl Marx, Thorstein Veblen, Historical School, Institutionalists, and modern dissenters from orthodox economics. Also an analysis of non-capitalist institutions and economics. *Prerequisite:* 19.100.

19.303 INTRODUCTION TO ECONOMIC THEORY (c 01.00) Introduction to macro and micro economic theory for non-economics and non-business majors. *Prerequisite:* 19.100.

19.304 LABOR ECONOMICS: POVERTY AND HUMAN RESOURCES (c 01.00) Application of economic theory to analysis of current labor problems, domestic and foreign. Problems include wage policy and wage differentials, manpower policy, poverty, unemployment and underemployment, discrimination, productivity, industrialization, and union policies. *Prerequisite:* 19.100.

19.305 INTRODUCTION TO QUANTITATIVE ECONOMICS (c 01.00) Selected topics from analytical geometry, calculus, linear algebra, statistics, computers, and their application to problems in economic research and analysis. *Prerequisites:* 41.100 and 19.100 or equivalent.

19.306 MONEY AND BANKING (c 01.00) Role of money and credit in economy. Structure and operations of commercial banks. Federal Reserve System and processes and instruments of monetary policy. Nonbanking financial institutions and structure of financial markets. Elements of monetary theory. "Flow of funds" and its use in monetary analysis. *Prerequisite:* 19.100.

19.307 POLITICAL ECONOMY OF ECONOMIC DEVELOPMENT (c 01.00) Theories of economic development (classical, Marxian, and modern). Simple growth models. Development strategies in agriculture and industry, population problems and development planning. Imperialism and Dependency. *Prerequisite:* 19.100.

19.308 HISTORY OF ECONOMIC DEVELOPMENT (c 01.00) Historical investigation of economic development process using Europe and United States as case studies. Emphasis placed on economic theory to illuminate process of historical development. *Prerequisite:* 19.100.

19.309 PUBLIC ECONOMICS (c 01.00) Introduction to theory of taxation, public expenditure and fiscal policy. Comparative survey of fiscal institutions in U.S. and abroad. Government approaches to income redistribution and problems of poverty: negative income tax, family allowances, etc. *Prerequisite:* 19.100.

19.310 INTRODUCTION TO ECONOMETRICS (c 01.00) Introduction to theory of economic statistics and statistical techniques. Emphasis will be upon applying statistical models to economic data. Introduction to probability, significance testing, elements of correlation, regression analysis, and testing hypotheses. *Prerequisites:* 19.100 and 41.100 or equivalent.

19.311 INTERNATIONAL ECONOMICS (c 01.00) In Fall the course is for non-economics majors. Class is less theoretical than in Spring and more concerned with current trends and policy issues. Spring semester course is designed for economics majors only. It stresses theory of international trade, economic integration, foreign investment and capital movements, and international monetary affairs. *Prerequisite:* 19.100.

19.312 INDUSTRIAL ORGANIZATION Historical and contemporary analysis of industrial market structures and behavior of business firms in U.S. Topics include rise of large corporations, monopoly power and its effects on economic and social welfare, nature of control over large corporations, and governmental regulation of business. *Prerequisite:* 19.100.

19.314 JUNIOR/SENIOR SEMINAR (c 01.00) Course is designed to encourage all economics majors to do independent research during junior and senior years. Topics chosen by professors and students involved. *Prerequisite:* Junior or senior standing in economics.

19.315 URBAN POLITICAL ECONOMY (c 01.00) Economic functions of cities, pollution, metropolitan decentralization, urban growth and development, transportation, urban form and structure, housing markets and discrimination, land-use patterns, urban renewal, local government finance, and poverty. *Prerequisite:* 19.100.

19.316 THE ECONOMICS OF DISCRIMINATION (c 01.00) Review of theories of discrimination and critiques of those theories. Special emphasis on evaluating empirical research designed to test major theories of discrimination, as they apply to problems of Blacks, Chicanos, American Indians, and women in U.S. economy. Some attention will be given to phenomenon of economic discrimination in other economies as well.

19.317 POLITICAL ECONOMY (c 01.00) Examination of interdependence of political, economic, and social forces in society as related to contemporary societal problems. Topics covered: methodology of political economy; conservative, liberal, and radical theories of political economy; class, power, and stratification in different societies; theory of state and its role in society. *Prerequisite:* 19.100.

19.318 ASIAN ECONOMIC PROBLEMS (c 01.00) Lecture and discussion course on economic problems, especially those related to modernization, in contemporary East, Southeast, and South Asia. *Prerequisite:* 19.100.

19.319 METHODOLOGY OF THE SOCIAL SCIENCES (c 01.00) Philosophy and methodology of social sciences with emphasis on economics. Historical and institutional methodologies. *Prerequisite:* 19.100.

19.320 DOCTRINAL ECONOMIC HISTORY (c 01.00) Exposition and analysis of development of economic theory. Emphasis placed on tracing evolution of economic theories out of specific historical contexts. Course covers major figures and schools in economic thought from Adam Smith to present. Attention given to significance to society of having a separate body of thought called economics. *Prerequisite:* 19.100.

19.390 INDEPENDENT READING COURSE IN ECONOMICS (c 00.25 through 02.00)*

19.391 WASHINGTON ECONOMIC POLICY SEMESTER INTERNSHIP (c 01.00) Designed to give the student first-hand experience in pursuing directed research within an organization directly involved in field of economic policy. Student must be concomitantly enrolled in 19.393 and 19.394.

19.393 WASHINGTON ECONOMIC POLICY SEMESTER SEMINAR I (c 01.00)

19.394 WASHINGTON ECONOMIC POLICY SEMESTER SEMINAR II (c 01.00) 19.393 and 19.394 are taken together. As one unit it involves intensive examination of economic policy making process in Washington. Encompasses theoretical analysis of economic problems covered; extensive readings; on-site discussions with economic policy decision-makers; preparation of papers; presentation of alternative paradigms used to understand economic policy.

19.396 SELECTED TOPICS (Non-Recurring) (c 01.00)*

19.490 INDEPENDENT STUDY PROJECT IN ECONOMICS (c 00.25 through 02.00)*

19.491 INTERNSHIP (c 00.25 through 02.00)

19.498 ECONOMICS HONORS I (c 01.00) See department undergraduate advisor.

19.499 ECONOMICS HONORS II (c 01.00) See department undergraduate advisor.

Graduate and Advanced Undergraduate Courses

GENERAL ECONOMIC THEORY

19.500 PRICE THEORY (s 03.00) Theory of resource allocation and price system. Theory of demand, production, and distribution. Market structure and performance. *Prerequisite:* 19.300 or permission of department.

19.501 INCOME THEORY I (s 03.00) Keynesian model of income determination. Detailed study of consumption, investment and interest rate theories. Keynesian and classical systems compared. *Prerequisite:* 19.301 or permission of department.

19.503 INTRODUCTION TO POLITICAL ECONOMY (s 03.00) Analysis of contemporary economic problems from political-economic perspective, examining interdependence of economic, political, and social forces. Special emphasis on methodology of political economy and comparisons among conservative, liberal, and radical theories of political economy. Examination of theory of state and its role, and of class, power, and stratification in society. *Prerequisite:* 19.100.

19.506 THEORY OF POLITICAL ECONOMY (s 03.00) Rigorous analytical treatment of methodology of political economy, value theory, accumulation process, crises and depressions, and recent developments in value theory. *Prerequisites:* 19.300 and 19.301, or 19.603.

19.510 COST-BENEFIT ANALYSIS (s 03.00) Theoretical and methodological alternatives in identifying economic and non-economic costs and benefits of development projects. Methods and techniques necessary in carrying out alternative cost-benefit estimates on development projects. Problems of under- and over-specification; problems and uncertainties in assessing non-quantifiable impacts. *Prerequisites:* 19.500 and 19.501.

QUANTITATIVE ECONOMICS

19.521 MATHEMATICAL ECONOMIC ANALYSIS (s 03.00) Mathematical analysis of economic theory and problems. Linear programming, Input-output, Lagrange multipliers, difference and differential equations. *Prerequisite:* 41.222 or permission of department.

*See description under "General Curriculum Information" in this publication.

19.522 ECONOMETRICS I (s 03.00) Theory of economic statistics and development of statistical models to be applied to economic data. Probability theory, statistical criteria, hypothesis testing, correlation and regression analysis, analysis of variance; emphasis will be upon application to economic data. *Prerequisite:* three hours of undergraduate statistics.

19.523 ECONOMETRICS II (s 03.00) Review of regression analysis and statistics, testing of hypotheses, rudimentary treatment of problem of aggregation, identification, multicollinearity and serial correlation; sources of economic data; an examination of computers in economics. *Prerequisites:* 19.521 and 19.522 or six hours of undergraduate statistics.

MONEY, CREDIT, AND BANKING

19.525 POLITICAL ECONOMY OF INTERNATIONAL FINANCE (s 03.00) Balance of payments accounts, modern theories concerning interrelations between price level, balance of payments, and capital movements. Foreign exchange markets, foreign investments and capital movements. International financial organizations. International monetary system and its reform; neo-imperialism. *Prerequisites:* 19.306 and 19.311.

19.530 CENTRAL BANKING (s 03.00) Comparative institutional and policy analysis of central banks. Relations to government and formulation of monetary policy. Quantitative and qualitative instruments. Monetary policy and economic growth in advanced countries. Role of central banks in developing countries. Central banks and international monetary institutions and arrangements. *Prerequisites:* 19.301 and 19.306.

19.531 Financial Markets (s 03.00) Comparative analysis of financial markets in advanced and developing countries. Formative factors, nature, and functions. Sectors, institutions, and instruments. Sources and uses of funds and influence of official and international policies and operations. Role in development programs and their behavior under inflation and stabilization conditions. *Prerequisites:* 19.300, 19.301, and 19.306.

19.532 MONETARY THEORY AND POLICY (s 03.00) Evolution of theories of money and interest in their relation to saving, investment, and income. Concepts of time and liquidity of preference, role of velocity in income determination. Relation of theory to market processes and monetary policies. Role of credit policy in economy. *Prerequisites:* 19.300, 19.301, and 19.306. (May not be taken by students who have already taken 19.731 for credit.)

19.533 DEVELOPMENT BANKING (s 03.00) Role and functions of institutions specializing in development financing, including public, private and mixed development banks, with analysis of their respective advantages and disadvantages in light of past experience. Relations of development banks to money and capital markets—competitiveness and compatibility with other financial institutions; sources of funds; use of funds, autonomous and syndicated operations; management of loan, bond and equity financing, etc.; project generation and selection, technical market and socio-political evaluations; fund management and project supervision; loan repayment and successive financing and development banking as instruments of development promotion. *Prerequisites:* 19.500 and 19.501.

ECONOMIC POLICY

19.541 PUBLIC ECONOMICS I (s 03.00) Rationale for existence of public sector. Theory of public goods. Theory of taxation. *Prerequisites:* 19.500 and 19.501 or permission of instructor.

19.542 PUBLIC ECONOMICS II (s 03.00) Analysis of public expenditure. Cost-benefit analysis, budgeting, fiscal policy. *Prerequisite:* 19.541 or permission of department.

19.544 SURVEY OF URBAN POLITICAL ECONOMY (s 03.00) Economic functions of cities; pollution, metropolitan decentralization, urban growth and development, transportation, urban morphology, housing markets and discrimination, land-use patterns, urban renewal, and local government finance. *Prerequisite:* 19.500 or permission of instructor.

19.546 INDUSTRIAL ORGANIZATIONS (s 03.00) Theoretical and empirical investigation of structure of industrial markets and behavior of business firms in U.S. Evaluation of welfare implications of current market structures, business behavior, and related government policies. *Prerequisite:* 19.300 or permission of instructor.

INTERNATIONAL ECONOMICS

19.551 INTERNATIONAL ECONOMIC THEORY (s 03.00) Theory of international specialization, world trade and development, commercial policy, balance of payments. *Prerequisites:* 19.300 and 19.301.

19.555 POLITICAL ECONOMY OF LATIN AMERICAN DEVELOPMENT: THEORIES VERSUS REALITIES (s 03.00) Review of Development Theory. Structural problems: economic, social, and political institutions. External dependency and internal instability: trade, foreign investment, aid, and unemployment, population, technology. Role for integration. Current fiscal and monetary policies. *Prerequisites:* 19.307 and 19.301 or 19.300 or permission of department.

19.558 CURRENT INTERNATIONAL ECONOMIC PROBLEMS (s 03.00) Lecture and discussion course dealing with international trade policy. International economic cooperation and integration, international factor movements (migration, foreign investment, foreign loans, foreign aid) and international monetary system and its reform. Particular attention paid to international economic problems of low-income countries and to U.S. foreign economic policy. *Prerequisite:* 19.311.

ECONOMIC DEVELOPMENT

19.533 ECONOMIC PROBLEMS OF SOUTHERN ASIA; SURVEY (s 03.00) Analyzes major economic features, problems and policies, especially as they relate to modernization process, in region that includes India, Pakistan, Sri Lanka, Burma, Thailand, Cambodia, Laos, Vietnam, Malaysia, Singapore, Indonesia, and Philippines. *Prerequisite:* permission of department.

19.554 ECONOMIC PROBLEMS OF SOUTHERN ASIA: CASE STUDIES—INDONESIA, MALAYSIA, AND SINGAPORE (s 03.00) Analyses, comparisons and contrasts, especially as related to modernization in economies of three countries. Especially recommended for students wishing intensive study in economic development, or in countries concerned. *Prerequisite:* permission of department.

19.559 PATTERNS AND PROBLEMS OF ECONOMIC DEVELOPMENT IN ASIA (s 03.00) Examination of economic development, its history, trends and problems in Japan, China, and formerly colonized areas, especially India, Pakistan, and Indonesia. Looks for lessons in Japanese experience and those of more or less socialized countries, and those of more or less open economies. *Prerequisite:* permission.

19.560 ECONOMIC DEVELOPMENT (s 03.00) Patterns, theories, and models of economic development of advanced and underdeveloped economies. Some historical theories and approaches to economic development. Theoretical concepts and issues in development planning. *Prerequisites:* 19.300, 19.301 or 19.603.

19.561 DEVELOPMENT PLANNING (s 03.00) Concerned with both macro and micro aspects of development planning. Both plan formulation and implementation will be considered. Theory compared with actual experience. Considers selected developed, less developed, socialist, mixed-economy countries in Africa, Asia and Europe as well as the Americas. *Prerequisite:* permission of department.

LABOR ECONOMICS

19.571 LABOR ECONOMICS: THEORY (s 03.00) Theories used to explain emergence of labor organization; history of development of labor organization; theories of exploitation and alienation; contemporary theories of wages, employment and prices; collective bargaining in a comparative context; impact of collective bargaining on the American economy; theories and empirical studies of wage differentials. *Prerequisites:* 19.300 and 19.301.

HISTORY OF ECONOMIC THOUGHT

19.504 ECONOMIC THOUGHT (s 03.00) Major figures in history of economic thought in terms of their social and economic thought and tools of analysis they created. *Prerequisites:* 19.300 and 19.301.

HISTORY OF ECONOMIC DEVELOPMENT

19.507 ECONOMICS OF AMERICAN DEVELOPMENT (s 03.00) Statistical and analytical investigation of long-run behavior of national income, population, savings, investment, consumption, labor productivity, and other factors affecting economic growth in U.S. Concepts of dual economy and balanced growth. *Prerequisite:* permission of department.

19.508 EUROPEAN ECONOMIC DEVELOPMENT (s 03.00) Origins and development of capitalism in the western world, with emphasis on Britain. Emphasis placed on economic theory to illuminate process of historical development. *Prerequisite:* permission of department.

COMPARATIVE ECONOMIC SYSTEMS

19.512 COMPARATIVE ECONOMIC SYSTEMS (s 03.00) Three worlds of development (advanced market, advanced non-market, and developing areas), as represented by U.S., Soviet Union, and patterns of underdevelopment. Meaning of economic systems, and approaches to their study. Course organized primarily around policy makers and their decisions, rather than around ideology or ownership, with emphasis on national goals and policy measures designed to achieve these goals. *Prerequisites:* 19.303 or permission of department.

19.552 STRUCTURE AND OPERATION OF THE SOVIET ECONOMY (s 03.00) Rate of economic growth, changing structure of the economy with emphasis on period since 1928. Conditioning factors. Planning techniques and procedures. International economic relations. *Prerequisite:* 19.100.

19.791 SEMINAR IN COMPARATIVE ECONOMIC SYSTEMS (s 03.00) Advanced analysis of problems in comparative economics. Discussion and supervised research. *Prerequisite:* 19.512 or permission of instructor.

19.590 INDEPENDENT READING COURSE IN ECONOMICS (s 01.00 through 06.00)*

Graduate Courses

GENERAL ECONOMIC THEORY

19.603 INTRODUCTION TO ECONOMIC THEORY (s'03.00) An intensive introduction to the major analytical tools of price theory and income theory. No credit toward graduate degrees in Economics Dept. *Prerequisite:* 19.100.

19.702 MACROECONOMIC ANALYSIS (s 03.00) Macroeconomic models. Theories of inflation. Monetary and fiscal theories. Theories of growth. *Prerequisite:* 19.501.

19.703 MICROECONOMIC ANALYSIS (s 03.00) Theory of demand. Theory of production and distribution. Theory of supply. *Prerequisite:* permission of department.

19.706 SEMINAR IN POLITICAL ECONOMY (s 03.00) Seminar treats contemporary political economic analysis of monopoly capitalism. *Prerequisite:* 19.506 or permission of department.

19.770 SEMINAR IN ECONOMIC THEORY: PRICE (s 03.00) Theory of market structure and performance. Capital theory and theory of economic growth. Welfare economics. *Prerequisite:* 19.500 or 19.703.

19.771 SEMINAR IN ECONOMIC THEORY: INCOME (s 03.00) Advanced analysis of problems of income determination and economic growth. Discussion and supervised research. *Prerequisite:* permission of instructor.

19.772 SEMINAR IN ECONOMIC THEORY: WELFARE (s 03.00) Advanced analysis of problems in welfare economics. Discussion and supervised research. *Prerequisite:* permission of instructor.

QUANTITATIVE ECONOMICS

19.785 SEMINAR IN MATHEMATICAL ECONOMICS (s 03.00) Application of mathematical methods to study of economics. Advanced study of static and dynamic models. *Prerequisites:* 19.521, 41.222, and 41.223 or permission of department.

19.786 SEMINAR IN ECONOMETRICS (s 03.00) Advanced quantitative analysis. Construction of stochastic economic models. Problems of specification, estimation, verification and prediction. *Prerequisite:* 19.523.

MONEY, CREDIT, AND BANKING

19.780 SEMINAR IN MONETARY ECONOMICS (s 03.00) Economic and monetary trends and their interrelationship. Federal Reserve policies and government financial operations and their effects on money and capital markets. Review of current economic indicators and monetary and financial statistics. Discussion and supervised research. *Prerequisite:* 19.532 or permission of department.

ECONOMIC POLICY

19.783 SEMINAR IN NATIONAL ECONOMIC POLICY (s 03.00) Economic aspects of leading problems in public policy. Formulation of national economic policy: planning principles and data bases.

* See description under "General Curriculum Information" in this publication.

Discussion and supervised research. *Prerequisite:* open to advanced Ph.D. students and as terminal seminar for M.A. candidates, others by permission of department.

19.787 SEMINAR IN PUBLIC ECONOMICS (s 03.00) Discussion of the role of taxation and government expenditure. Optimal tax structure. Optimal public expenditure. Role of fiscal policy in stabilization and growth. *Prerequisites:* 19.541 and 19.542 or permission of department.

19.789 SEMINAR IN URBAN POLITICAL ECONOMY (s 03.00) Selected advanced topics. Discussion and supervised research. *Prerequisite:* 19.544.

INTERNATIONAL ECONOMICS

19.784 SEMINAR IN INTERNATIONAL TRADE AND FINANCE (s 03.00) Beginning with international economic problems of low-income countries, deals with major current problems of the international economy, including trade problems and policies, foreign aid, foreign investment, economic integration, U.S. balance of payments and international monetary system. *Prerequisite:* 19.551 or permission of department.

ECONOMIC DEVELOPMENT

19.788 SEMINAR IN ECONOMIC DEVELOPMENT (s 03.00) Trends in living standards, economic planning programs, capital formation, industrial-agricultural techniques, monetary and fiscal structures, income distribution, foreign trade of underdeveloped countries. *Prerequisite:* 19.307 or 19.560.

LABOR ECONOMICS

19.790 SEMINAR IN CURRENT LABOR PROBLEMS: POVERTY AND HUMAN RESOURCES (s 03.00) Analyzes causes and consequences of poverty in American economy. Meaning and measurement of poverty; economics of inequality; income distribution; causes of poverty, including low wages, low incomes, unemployment; economics of racism; economics of education; policies to alleviate poverty; manpower, education; income maintenance; income redistribution. *Prerequisites:* 19.300 and 19.301.

HISTORY OF ECONOMIC THOUGHT

19.704 SEMINAR IN ECONOMIC THOUGHT (s 03.00) Special topics in the history of economic thought, with emphasis on problems of methodology and philosophy. *Prerequisite:* 19.504.

HISTORY OF ECONOMIC DEVELOPMENT

19.709 SEMINAR IN ECONOMIC HISTORY (s 03.00) Selected topics and research in economic history—American and European. *Prerequisites:* 19.507 and 19.508.

COMPARATIVE ECONOMIC SYSTEMS

19.791 SEMINAR IN COMPARATIVE ECONOMIC SYSTEMS (s 03.00) Advanced analysis of problems in comparative economics. Discussion and supervised research. *Prerequisite:* 19.512 or permission of department.

19.690 INDEPENDENT STUDY PROJECT IN ECONOMICS (s 01.00 through 06.00)*

19.691 INTERNSHIP (s 01.00 through 06.00)

19.696 SELECTED TOPICS (Non-Recurring) (s 03.00)*

19.797 MASTER'S THESIS SEMINAR (s 01.00 through 06.00)

19.799 DOCTORAL DISSERTATION SEMINAR (s 01.00 through 24.00)

School of Education

DEAN Donald R. Thomas

Director of Undergraduate Studies and Teacher Education David Sadker

Director of Graduate Studies Robert J. Chinnis

*See description under "General Curriculum Information" in this publication.

FULL-TIME FACULTY

Professor E. Burr (Emeritus), J. W. Devor (Emeritus), C. A. Gross (Emeritus), B. A. Hodinko, F. Holliday (Emeritus), T. J. Landers, P. D. Leedy, N. J. Long, D. R. Thomas, R. Whitfield, S. D. Whitley

Associate Professor F. J. Barros, R. J. Chinnis, A. Gottesman, F. E. Huber, C. Messersmith, D. D. Miller, J. D. Robinson, D. Sadker, M. Sadker, D. Sansbury, C. Van Way (Emeritus)

Assistant Professor L. Cole, S. Cowen, N. Dworkin, M. Katz, R. Korb, P. Strain, J. Toomer

FIELDS OF STUDY Undergraduate: elementary and early childhood and secondary education; Graduate: educational administration and supervision, special education, counseling, science education, student development in higher education, mathematics education, and higher education.

Undergraduate Degree Programs

Bachelor of Arts

ADMISSION TO A TEACHER EDUCATION PROGRAM Students must meet the University admission requirements. In addition, students must meet the standards required by the School of Education. *Admission to the University does not automatically admit one to a program in teacher education.*

Continuous Selection Criteria (1) Anyone desiring admission must enroll in the first of a sequence of professional education courses, 21.300 Foundations of Education and 21.320 Psychology of Education. Enrollment in these courses precedes formal application to a teacher education program. Elementary and Early Childhood Education majors normally enroll in these courses during the sophomore year, while those planning to teach in the secondary schools must enroll in these courses not later than the Fall semester of the junior year. A grade point average of 2.30 and 57.100 Introductory Survey of Psychology or 57.110 Behavior Principles are prerequisites to enrollment in 21.300 and 21.320.

(2) Prior to enrollment in either 21.350 Elementary and Early Childhood Methods or 21.340 Secondary Education Methods, the student submits his application for admission to a teacher education program to the school. Application forms are available at the School of Education. Admission requirements at this stage consist of: (a) a cumulative grade point average of 2.50 or better; (b) recommendation by 21.300 and 21.320 instructors; and (c) recommendation by the student's academic advisor.

(3) To remain in a teacher education program, a student must maintain a cumulative grade point average of 2.50 or better.

MAJOR IN ELEMENTARY AND EARLY CHILDHOOD EDUCATION

The following program is required for Elementary and Early Childhood Education majors in order to meet most state certification requirements. Even though the professional education aspects of the program have been carefully designed, graduation does not assure one a position as a fully certified teacher. The American University does *not* license one to teach in any given state; such certifications are issued only by a state government agency.

The student is responsible for selecting courses which will enable the student to obtain a certificate in his or her chosen state. Certification requirements should be examined no later than the beginning of the student's sophomore year. The elementary education program is approved by the National Council for Accreditation of Teacher Education (NCATE). States recognizing such accreditation guarantee certification to graduates of NCATE approved programs even though the graduate may not meet all specific state requirements. Consult advisor regarding certification matters.

COMPOSITION AND READING REQUIREMENT See "Undergraduate Degree Requirements" in this publication.

LANGUAGE REQUIREMENT See opening section under "College of Arts and Sciences" in this publication.

MAJOR REQUIREMENTS

DISTRIBUTION

Humanities Electives Any three course units in the humanities must be taken. These may be chosen from literature, art, music, philosophy, religion, and the performing arts.

Natural Sciences and Mathematics Electives Three course units in the natural sciences or mathematics or both must be taken. Courses 15.160 Natural Sciences I and 15.161 Natural Sciences II focus on the natural sciences with an emphasis on teaching science to the blind and emotionally disturbed. These two courses are highly recommended for the elementary education major. They are required for the elementary education major who wishes to attain a concentration in the special education track.

Social Sciences Electives Any three course units in the social sciences must be taken. These may be chosen from anthropology, economics, history, government, international studies, psychology, and sociology.

Elective Field for Academic Concentration An academic concentration or track (other than education courses) of at least six courses is required. Courses in this area may overlap with any one of the above humanities, natural sciences, mathematics, or social sciences depending on one's academic concentration. The six courses may be taken in any one department or school (such as six courses of economics or sociology) or in interdisciplinary combinations (such as six courses distributed in the behavioral sciences, the humanities, the natural sciences, and mathematics) and others may be arranged to satisfy specific certification needs.

PROFESSIONAL CORE Students majoring in elementary and early childhood education are required to complete the following courses: 21.300 Foundations of Education and 21.320 Psychology of Education (to be taken concurrently); 21.371 Psycho-Educational Approaches to Reading Instruction (required of all students entering the elementary education program starting Fall 1975); 21.350 Methods and Materials in Elementary and Early Childhood Education: Reading, Language Arts, Social Studies, Mathematics, and Science; 21.444 Student Teaching: Elementary and Early Childhood.

PROFESSIONAL RELATED COURSES Students are required to complete any four of the following courses: 05.380 Teaching Art in Elementary Schools; 21.250 Mathematics for Elementary School Teachers; 21.345 Children's Literature; 21.360 Professional Modules in Education; 21.427 Inner City Education; 21.581 Physical Science for Elementary School Teachers; 21.582 Biological Science for Elementary School Teachers; 43.353 Music for Elementary School Teachers; 43.361 General Music in Elementary Schools; 49.310 Elementary School Rhythmic Activities; 49.330 Health and Safety; 49.335 Elementary School Movement Education; 21.390 Independent Reading Course in Education (one of which may be counted as a professionally related course); 67.480 Synthesis and Exploration of Artistic/Projective Elements.

TRACK IN SPECIAL EDUCATION Students enrolled in the Elementary and Early Childhood major may elect to fulfill a track or concentration in Special Education. To graduate with a track in Special Education, students must take the requirements for the major as well as the following course requirements: 15.160 Natural Sciences I; 15.161 Natural Sciences II; 21.402 Educational Procedures for Children with Learning Problems; 21.503 Theories and Practice in Special Education; 21.444 Student Teaching: Early Childhood and Elementary (seven weeks of the fifteen week teaching must be done in a special education setting).

Juniors and seniors may expand the special education track by electing to enroll in xx.500 level courses pertinent to special education unless otherwise specified by the instructor. While the Special Education track will not meet special education requirements for most school systems, the track does provide students with background knowledge and experience in this area.

ELECTIVES To complete a minimum of thirty-two course units.

TRANSPORTATION TO SCHOOLS It is the responsibility of each student to provide transportation, either public or private, to his student aide, methods, and student teaching assignments.

SECOND MAJOR IN SECONDARY EDUCATION

Undergraduate students planning to teach in secondary schools *must major in the field in which they plan to teach*. In addition, they must complete the following courses in professional education: 21.300 Foundations of Education and 21.320 Psychology of Education (to be taken concurrently); 21.340 Methods and Materials in Secondary Education: General and Special: English, Foreign Language, Mathematics, Sciences, and Social Studies; (21.371 or 21.571 Foundations of Reading Instruction is required for those planning on teaching English or social studies; it is highly recommended for other Secondary Education majors); 21.445 Student Teaching: Secondary Schools; any other courses required for teaching certification in the state in which the student plans to teach.

TRANSPORTATION TO SCHOOLS It is the responsibility of each student to provide transportation to his student aide, methods, and student teaching assignments. Individual requests for specific school assignments cannot be honored.

Graduate Degree Programs

Candidates for graduate degrees in all academic units must meet the requirements set forth in the University Minimum Standards for Graduate Study. The requirements appearing below are those of this school and do not relieve degree candidates from compliance with the minimum standards.

Graduate requirements are constantly being refined to improve the excellence of the graduate programs of the School of Education. Therefore, students should consult the school office for the latest information. The student must assume responsibility for meeting all deadlines as announced in the University academic calendar and must be conversant with all graduate regulations pertaining to his particular degree. It is imperative that each student consult with his advisor as he progresses through the degree. Failure to do so may result in errors, the responsibility for which must be assumed by the student.

MASTER'S DEGREES

PROGRAMS AND MAJORS A student entering the School of Education with a bachelor's degree has the option of one of four master's degree programs: (A) A Master of Arts with a major in Education specializing in a field outside the School of Education; (B) a Master of Education with a major in one of the specialty fields in the School of Education (see comprehensive examination fields listing given with detailed Master of Arts information below); (C) a generalist Master of Education degree with no major or specialty; or (D) a Master of Education with a major in Secondary Education.

Program A This program is designed for teachers of an academic subject who want to strengthen their background in their subject-matter area in addition to obtaining greater competency in their professional educational activities, and for those persons who prefer to emphasize the academic or research aspects of their educational disciplines.

Program B This program is designed for those persons who wish to concentrate within one professional specialty in education.

Program C This program is designed for those persons who wish a broad background covering several areas of education. Students in this program are allowed to select courses from several specialty fields and supporting areas but are specifically discouraged from enrollment in the advanced professional courses within specialty fields.

Program D This program is designed for those persons with a liberal arts degree in secondary education teaching.

Master of Education

ADMISSION REQUIREMENTS All candidates must have an overall undergraduate grade point average of 2.75 (on a 4.00 scale) based on the last sixty semester hours of work, and a 3.00 or better in education or other major field of specialization, and a satisfactory score on the Graduate Record Aptitude Examination (within five years preceding admission application) or the Miller Analogies Test. Additional admission requirements may be imposed by the specialty fields, and specific score standards on GRE or MAT may be obtained from an advisor.

A student who seeks the M.Ed. degree must, in most cases, be able to meet requirements for a teacher's certificate in some state in elementary or secondary education *unless* enrolling in a program preparing for positions in higher education or *Program D*. Certification requirements universally require student teaching (or successful teaching experience) or an internship such as 21.659 Practicum in Counseling, 21.769 Internship in Student Development in Higher Education, or 21.792 In-Service Training Project: Internship in Education.

Students will be admitted to master's degree programs three times a year with the suggested deadline for applications being May 1 for Fall, November 1 for Spring, and March 1 for Summer. Students are encouraged to apply for admission for the Fall.

A student may be admitted to a master's degree program only after all prerequisites are met.

COURSE REQUIREMENTS The minimum requirement for the Master's degree is thirty semester hours; some programs, however, will require additional hours. All candidates must take 21.790

Educational Research and one of the following: 21.791 Research Seminar in Education (required of generalist M.Ed. candidates); 21.659 Practicum in Counseling; 21.769 Internship in Student Development in Higher Education; 21.792 In-Service Training Project: Internship in Education.

WRITTEN COMPREHENSIVE EXAMINATIONS For an M.Ed. in a specialty field, one written comprehensive examination in the field of specialization is required. See comprehensive examination fields listing under the M.A. program description.

Master of Arts

ADMISSION REQUIREMENTS Same as for the M.Ed. degree.

COURSE REQUIREMENTS In no case will a program for a Master of Arts degree require less than thirty semester hours of credit, twelve of which may be taken in a department other than the School of Education. All candidates must take 21.790 Educational Research and 21.797 Master's Thesis Seminar.

WRITTEN COMPREHENSIVE EXAMINATIONS Two written comprehensive examinations are required: one in a core field of Education and one in a field outside Education.

OTHER REQUIREMENTS An acceptable thesis and oral defense of the thesis.

COMPREHENSIVE EXAMINATION FIELDS FOR MASTER OF EDUCATION AND MASTER OF ARTS DEGREES (1) Core Fields (for students in Program A): 21.001 History and Philosophy of Education; 21.002 Psychology of Education; (2) Specialty Fields (for students in Program B): 21.003 Educational Administration and Supervision; 21.004A Special Education: Learning Disabilities; 21.004B Special Education: Emotionally Disturbed; 21.004C Special Education: Reading Education; 21.005 Counseling; 21.006 Student Development in Higher Education; 21.008 Science Education; 49.001 Physical Education; (3) Generalist Examination (for students in Program C): 21.007 General Education; (4) General Examination (for students in Program D): 21.009 Curriculum and Instruction in Secondary Education.

Master of Education Program for Training Teachers of Emotionally Disturbed Children

Beginning July 1969, the U.S. Office of Education Bureau of Handicapped Children funded an experimental program designed to train graduate students with no former undergraduate education background to teach emotionally disturbed children.

A unique characteristic of this twelve month program is that the trainee spends a Summer Session on The American University campus taking courses from the School of Education, with the following nine months at a District of Columbia area public school, in an intensive fifty-hour week internship-seminar program. Upon completion of this program the graduates are awarded an M.Ed. degree in Special Education, and meet certification requirements to teach emotionally disturbed children. Fellowships are available. For further information write: Project Director, M.Ed. Program for Training Teachers of Emotionally Disturbed Children, School of Education, Roper Hall, The American University, Washington D.C., 20016.

Master of Science in Science Teaching

For information about the interdepartmental M.S.S.T. degree program, see "Interdepartmental Science" in this publication.

DOCTORAL DEGREES

The School of Education offers two degrees in education at the doctoral level: the Doctor of Education and the Doctor of Philosophy. Each of these degrees has its own discrete orientation and addresses itself to the singular needs of the student. The Doctor of Education is appropriate for professional educators: teachers at all educational levels, administrative and supervisory personnel, and all others who are engaged primarily in activities of a purely educative nature. The Doctor of Philosophy is structured for those whose professional orientation to education is not so closely related to classroom activity but rather to research applications of education, or structured for those who may wish to relate education to a particular subject area or academic field.

Qualitatively and quantitatively, the degrees are co-equal. Their differences lie only in the need to structure each degree program to the professional objective of the student.

The privilege that is granted the student to pursue the discipline for the doctorate presumes that the ability of the student is equal to the rigorous demands of the doctoral program. The ability is evidenced by competence to pass appropriate comprehensive examinations which are addressed to the student's knowledge of his field and his ability to carry out independent study and research relative to that field. No amount of course work by itself will satisfy the total requirements for the doctorate.

THE AREAS OF STUDY AND MAJORS The School of Education accepts candidates for the degrees of Doctor of Education and Doctor of Philosophy in the following areas of study or majors:

Higher Education This major is recommended for preparation for professional positions in student personnel services and college teaching and administration.

Special Education This major is recommended for preparation for professional positions as classroom teachers with a specialty in reading: special teachers of reading, reading clinicians, reading consultants, reading supervisors, specialists in reading problems of the inner-city, in the unique problems of teaching reading to the exceptional child, in the reading problems associated with the college and adult level; specialists in learning disabilities; specialists in teaching emotionally disturbed children.

Counseling Psychology This major is recommended for preparation for professional positions as counselors, directors of counseling, and research specialists in counseling. Students are admitted for the Fall semester only. All credentials must be in the hands of the Admissions Committee by the previous February.

Educational Administration and Supervision This major is recommended for preparation for professional positions as school superintendents, elementary and secondary principals, supervisors, and teachers of educational administration.

In addition to study in the four above majors, each student is expected to develop competence in complementary areas which are listed under the doctoral comprehensive examinations given below.

Mathematics Education This major is recommended for preparation for professional positions in public schools and institutions of higher education.

Science Education This major is recommended for preparation for professional positions in public schools and institutions of higher education.

PREREQUISITES A bachelor's degree or equivalent, and in most cases, a master's degree from an accredited institution. The student must also have achieved a satisfactory score on the Graduate Record Aptitude Examination (within five years preceding admission application) or the Miller Analogies Test, and have attained a grade point average satisfactory to the School of Education: 3.50 in his former graduate work and 2.75 in undergraduate work on a 4.00 scale. The student is advised to consult his proposed major advisor for specific GRE and MAT standards and other specific prerequisites. All prerequisites must be completed before admission to the program.

COURSE REQUIREMENTS No amount of course work by itself will earn the doctorate, but a minimum of seventy-two hours of graduate credit is required of all candidates. These hours must be distributed in two categories: course credit and dissertation seminar credit. Normally, sixty to sixty-six hours must be presented in course credit, including 21.790 Educational Research or equivalent. At least twelve hours must be in dissertation seminar credit. Specific courses may be required in each of the doctoral programs. See "Graduate Degree Requirements" in this publication. In addition, consult the "Guide to Doctoral Degree Programs in Education" by the School of Education and the appropriate program advisor.

QUALIFYING EXAMINATION AND ADVANCEMENT TO CANDIDACY REQUIREMENT A doctoral student will be advanced to candidacy after presentation of a plan of study to the faculty associated with his major field of study and passage of a qualifying examination assessing his potential for doctoral study in his major field.

Such examination will occur after completion of nine hours of graduate study, at least three of which will be in the candidate's major field of study, except that the candidate obtaining the grade of distinction in the comprehensive examination in his same major field at the master's level at The American University may be advanced to candidacy upon review of his plan of doctoral study by the faculty associated with his major field of study. In this case the master's comprehensive will constitute the qualifying examination.

COMPREHENSIVE EXAMINATION REQUIREMENTS Four comprehensive examinations, two of which must be written, are required. Two must be in the candidate's major field of study, one of which will be an oral examination, and at least one in a complementary field of study.

Comprehensive examinations currently offered doctoral candidates are: 21.021A History of Higher Education; 21.021B Philosophy of Education; 21.022 Psychology of Education; 21.023A Educational Administration: General (oral); 21.023B Educational Administration: Special (written); 21.023C Management Theory and Practice in Education; 21.023D Public School Administration for Non-Majors; 21.024A Special Education: Learning Disabilities; 21.024B Special Education: Reading; 21.024C Special Education: Emotionally Disturbed; 21.025A Counseling Theories and Research; 21.025B Behavioral Counseling: Theories and Research; 21.025C Group Counseling: Theories and Research; 21.025D Family Systems and Parental Counseling; 21.025E Organization, Administration, and Supervision in Counseling Theories and Research; 21.025F Vocational Counseling; 21.025G Dynamic Counseling: Theories and Research; 21.026A Foundations of Higher Education; 21.026B Student Development in Higher Education; 21.026C Institutional Aspects of Higher Education; 21.028 Curriculum Development and Instruction; 21.029 Science Education; 21.030 Educational Research; 21.031 Mathematics Education.

Candidates for the degree of Doctor of Philosophy *must* take one comprehensive examination outside the School of Education, normally from among those academic areas which are commonly known as liberal arts or from another professional field. The student's anticipated occupation must support such an elective as being reasonable, and both the School of Education and the outside department or school must approve the choice. Candidates for the degree of Doctor of Education may elect to be examined in a field outside the School of Education. Candidates must make the necessary arrangements, including course requirements, with the department or school in which they will be taking the examination outside the School of Education. The School of Education will not assume responsibility for making such arrangements.

TOOLS OF RESEARCH REQUIREMENTS Proficiency must be demonstrated by all doctoral degree candidates in two tools of research. Doctor of Philosophy degree candidates must demonstrate proficiency in one foreign language or computer science.

Languages Tool examinations are given in French, Spanish, German, or another foreign language by special permission of the School of Education and the Department of Language and Foreign Studies. Examinations are also given in computer languages.

Quantitative The tool examination in "Educational and Psychological Measurement and Evaluation" is administered by the School of Education. This tool may be satisfied by successful completion, with a grade of B or better, of course 21.522 Evaluation of Student Progress. The tool examination in "Statistics" is administered by the School of Education. It may be satisfied by successful completion, with a grade of B or better, of course 21.625 Educational Statistics II.

FULL-TIME STUDY REQUIREMENT The full-time study year, required of all doctoral students in education, may be satisfied by two consecutive sessions of full-time graduate work at The American University in any one of the following combinations: (1) a Fall semester (nine–twelve hours) of one academic year and the following Spring (nine–twelve hours); (2) a Spring semester (nine–twelve hours) of one academic year and a Fall semester (nine–twelve hours) of the next academic year; (3) A Summer Session (nine hours) and the following Fall semester (nine–twelve hours); (4) a Spring semester (nine–twelve hours) and the following Summer Session (nine hours).

DISSERTATION REQUIREMENT Each candidate must present a satisfactorily written dissertation and pass, satisfactorily, an oral defense of the dissertation.

Courses of Instruction

Undergraduate Courses

21.250 MATHEMATICS FOR ELEMENTARY SCHOOL TEACHERS (c 01.00) For future elementary school teachers. Introduction of all mathematical concepts in various mathematics programs in elementary schools. Experience with concrete materials. Evaluation of elementary school mathematics programs. Field experience. Open to sophomores and above.

21.300 FOUNDATIONS OF EDUCATION (c 01.00) Consideration of the social context of American education with special emphasis on contemporary problems and innovations. Lecture, small group discussion, and one-half day of field experience in schools per week. Must be taken concurrently

with 21.320, Psychology of Education. *Prerequisites:* 57.100 or 57.110, grade point average of 2.30 and sophomore standing.

21.320 PSYCHOLOGY OF EDUCATION (c 01.00) Psychological problems encountered in learning. Nature and control of learning; theories of motivation; development of skills and knowledge; creative learning and critical thinking. Lecture, small group discussion, and one-half day of field experience in schools per week. Must be taken concurrently with 21.300, Foundations of Education. *Prerequisites:* 57.100 or 57.110, a grade point average of 2.30, and sophomore standing.

21.340 METHODS AND MATERIALS IN SECONDARY EDUCATION: GENERAL AND SPECIAL: ENGLISH, SOCIAL STUDIES, SCIENCE, MATHEMATICS, AND FOREIGN LANGUAGES (c 01.00) General methods, materials and applications to special school subject fields. Laboratory experiences in the university classroom and in area secondary schools. Students provide their own transportation to field experience assignments. *Prerequisites:* 21.300 and 21.320 or equivalent, grade point average of 2.50 (3.00 in the major) and admission to a program of teacher education. Offered Spring semester only, except foreign language methods.

21.342 METHODS OF TEACHING IN SECONDARY SCHOOLS (c 01.00) General teaching methods; some opportunity to apply principles to certain specialized subject matter fields. Laboratory experiences in secondary schools in Washington area and in use of educational resources. Students provide their own transportation to field experience assignments. *Prerequisites:* 21.300, 21.320, and a grade point average of 2.50. Offered only off-campus. Not offered to students who have had 21.340.

21.345 CHILDREN'S LITERATURE (c 01.00) Literature and poetry related to interests and abilities of children and young adults. A study of tradebooks and related materials from viewpoint of their value in developmental process of the individual. Techniques and aids for stimulating reading interests. Use of tradebooks and poetry in school curriculum. *Prerequisite:* junior standing.

21.350 METHODS AND MATERIALS IN EARLY CHILDHOOD AND ELEMENTARY EDUCATION (c 02.50) Materials and Methods for use in teaching elementary school subjects. Laboratory experiences in university classroom, in area elementary schools, and in use of other educational resources. Students provide their own transportation to field experience assignments. *Prerequisites:* 21.300 and 21.320 or equivalent, a grade point average of 2.50, admission to a program of teacher education. Note: All students enrolling in this course must have Tuesday and Wednesday completely free from 8:00 a.m. to 4:00 p.m.

21.360 PROFESSIONAL MODULES IN EDUCATION (c 01.00) Series of three and four week brief courses which focus on a variety of educational topics, ranging from early childhood education to sexism in education. Each module has a 00.25 course unit credit value (one course from each of four groups accumulates equivalent of one full course unit credit). Each student must sign up for four modules, all in same semester.

21.371 PSYCHO-EDUCATIONAL APPROACHES TO READING INSTRUCTION (s 01.00) Structure of reading, overview of psycho-social factors contributing to reading deficits, informal assessment techniques, and methodological approaches to total remediation system.

21.390 INDEPENDENT READING COURSE IN EDUCATION (c 00.25 through 02.00)*

21.402 EDUCATIONAL PROCEDURES FOR CHILDREN WITH LEARNING PROBLEMS (c 01.00) Basic theories of learning deficits discussed. Remediation procedures in form of administrative arrangements, material situations, and specific teaching and evaluation tactics emphasized.

21.427 INNER-CITY EDUCATION (c 01.00) Introduction to teaching in inner-city. Weekly seminar and three hours of participation in field.

21.444 STUDENT TEACHING: EARLY CHILDHOOD AND ELEMENTARY (c 03.00 or 04.00) Observation, participation, and teaching grades K through 6. Conferences arranged with university supervisor; seminars at frequent intervals. *Four course units* (fifteen weeks) of student teaching *required for elementary education majors*. Three course units (twelve weeks) of student teaching may be taken by those with a Bachelor's Degree who are doing their student teaching for certification purposes only. Students provide their own transportation to and from field experience assignments. Elementary student teaching applications must have been submitted by October 1 or March 1 for following semester. *Prerequisites:* senior status, 21.300, 21.320 and 21.350 or equivalents, grade point

* See description under "General Curriculum Information" in this publication.

average of 2.50 and admission to a program of teacher education. *Note:* Persons with a bachelor's degree may arrange enrollment for 00.50 to meet state certification.

21.445 STUDENT TEACHING: SECONDARY SCHOOLS (c 02.50, 03.00 or 04.00) Observation, participation, and teaching in grades seven through twelve. Conferences with university supervisor, seminars at frequent intervals. Students provide their own transportation to student teaching assignment. Four course units require fifteen weeks of student teaching and may be taken only by those who have previously completed 21.340 or equivalent. Two and one-half course units require nine weeks of student teaching and three course units require twelve weeks of student teaching. *Prerequisites:* 21.300, 21.320 and 21.340 or equivalents, grade point average of 2.50 (3.00 in the major) and admission to a program in teacher education. Applications for student teaching must have been submitted by October 1 or March 1 for following semester. **NOTE:** Offered Fall semester only for English, social studies, mathematics and sciences. Effective Fall 1976: All secondary student teaching will be offered once a year, excluding language, music, and physical education. Consult school for details.

21.446 ELEMENTARY AND/OR SECONDARY STUDENT TEACHING: ART, MUSIC, DANCE, AND PHYSICAL EDUCATION (c 02.50 through 04.00) Students desiring K through twelfth grade certification enroll in 21.446 to arrange student teaching in both elementary and secondary schools. Minimum of six weeks of total fifteen weeks of student teaching must be completed at each level.

21.490 INDEPENDENT STUDY PROJECT IN EDUCATION (c 00.25 through 02.00)*

SEE ALSO:

37.491 SPANISH PRACTICUM: PROYECTO AMISTAD (c 01.00) See "Language and Foreign Studies" in this publication.

Graduate and Advanced Undergraduate Courses

21.501 LANGUAGE ARTS AND SOCIAL STUDIES CURRICULA IN SPECIAL EDUCATION (s 02.00) Examines relationship between teacher and his curriculum, and learner and his need system. First semester concentrates on language arts and social studies including following aspects: recognition of teaching of reading as crucial educational responsibility, insight into reading process in relation to principles of learning and child development, materials and techniques for specific learning outcomes, role of language in child's life and interrelationships among various phases of language arts. Practicum experience includes teaching a curriculum under video tape supervision.

21.502 METHODS OF MANAGING INAPPROPRIATE CLASSROOM BEHAVIOR (s 02.00) Psycho-educational methods of understanding and managing inappropriate classroom behavior. Techniques such as groups, problem solving, role playing, and video tape analysis of behavior. Restricted to Special Education majors.

21.503 THEORIES AND PRACTICES IN SPECIAL EDUCATION (s 02.00) Theories and methods of re-educating emotionally disturbed children such as psychodynamic, behavioral, psycho-educational, educational, and ecological models. Case conferences, guest lectures, group discussion and video tape analysis used as teaching techniques. Restricted to Special Education majors.

21.504 METHODS OF PSYCHO-EDUCATIONAL ASSESSMENT (s 02.00) Designed to develop appreciation of assessment process by which one attempts to understand meaning of a child's behavior. Examines critical issues and concepts in measurement of behavior, data interpretation, psycho-educational programming and follow-up evaluation. Practicum experiences include observation and participation in classroom activities, group and individual testing, and psycho-educational case conferences.

21.505 METHODS OF STUDYING GROUP BEHAVIOR IN SPECIAL EDUCATION I (s 02.00) Designed along lines of process group. Under careful direction of a trained group specialist, trainees have opportunity to explore interpersonal and intrapersonal communications and understand how groups function. Experiences are related to role of a classroom teacher in special education.

21.506 MATHEMATICS AND SCIENCE CURRICULA IN SPECIAL EDUCATION (s 02.00) Basic material in math and science through readings, demonstrations, educational games and laboratory exercises. All material developed is implemented in trainees' classroom. Practicum experience includes videotaping of classroom lessons.

* See description under "General Curriculum Information" in this publication.

21.507 THEORIES OF CHILD DEVELOPMENT (s 02.00) Reviews basic theories of child development including psychoanalytic, social learning and cognitive developmental theories. Focuses on such concepts as critical periods, stage and phase development, primary and secondary drives and reinforcement, hierarchy of motivational needs, defense mechanisms, developmental lines and selfmastery. Material on early childhood differences in constitution, personality and rearing practices are covered and related to students in trainees' classroom.

21.508 THEORIES AND METHODS OF URBAN EDUCATION CURRICULUM (s 02.00) Involves procedures, dynamics and content of inner-city education—and way in which this system affects exceptional children who have emotional disturbances. Process of employing this curriculum is implemented through theory and application of methods through practicum experience.

21.509 METHODS OF REMEDIATION IN SPECIAL EDUCATION (s 02.00) Reviews remedial principles of teaching children with learning problems. Basic phonetic approaches, construction and administration of informal reading and developmental skill inventories, and teaching programs for skill development. Practicum experience includes individual and group observation and teaching, lesson planning, supervisory conferences, developing teaching resource file, and during second semester, tutoring three times per week.

21.510 PHILOSOPHY OF EDUCATION (s 03.00) Examination of thought of leading philosophers on education: Plato, Dewey, and of contemporary schools in philosophy of education such as existentialism and analytic philosophy.

21.511 HISTORY OF EDUCATION IN WESTERN CULTURE (s 03.00) Consideration of educational ideas and institutions in Greco-Roman culture, Christian middle ages, Renaissance, and Atlantic nations since 1789; with emphasis on intellectual, social, religious, economic, and political factors shaping educational development.

21.512 HISTORY OF EDUCATION IN THE UNITED STATES (s 03.00) European inheritance in colonial education; development of American educational ideas and institutions during nineteenth century, progressive epoch, and post-progressive period; emphasis on intellectual, social, religious, economic, and political factors shaping American education.

21.513 HISTORY OF HIGHER EDUCATION IN THE UNITED STATES (s 03.00) European universities in middle ages, English reformation, and nineteenth century American colleges and universities beginning with Harvard College, but concentrating on history of American higher education since 1869.

21.514 PHILOSOPHICAL ISSUES IN HIGHER EDUCATION (s 03.00) Application of analytical philosophical skills upon significant issues in higher education (issues such as accountability, academic freedom, social role of university, and equal educational opportunity).

21.515 COMPARATIVE PHILOSOPHIES OF EDUCATION (s 03.00) Consideration of four influential philosophies of education (idealism, realism, instrumentalism, existentialism) through analytical examination of works of several major philosophers (Plato, Aristotle, Dewey, et al.).

21.520 ADVANCED PSYCHOLOGY OF EDUCATION (s 03.00) Psychological principles and research having special relevance to education, including a consideration of motivation, attitudes, mental abilities, and the psychology of school subjects.

21.521 MENTAL HEALTH IN SCHOOLS (s 03.00) Analysis of factors promoting mental health, consideration of application of mental health concepts to the educational setting.

21.522 EVALUATION OF STUDENT PROGRESS (s 03.00) Selection, construction, administration, scoring, interpretation, and uses of standardized measuring instruments and informal teacher-made tests in evaluating student progress.

21.525 EDUCATIONAL STATISTICS I (s 03.00) Descriptive statistics: organization and presentation of data, measures of central tendency and variability, product moment correlation; normal distribution: sampling errors, tests of significance. Basic sampling technique; hypothesis testing. Application of statistical methods to educational and psychological research.

21.530 THE TEACHER AND EDUCATIONAL ADMINISTRATION (s 03.00) Administrative duties and relations of the teacher with reference to guidance, curriculum and financial responsibilities, includes consideration of school work involving cooperation between or among teachers, supervisors and administrative officers. *Prerequisites:* 21.300 and 21.340 or 21.350, or equivalents. For students *not* majoring in educational administration.

- 21.531 INTRODUCTION TO SCHOOL ADMINISTRATION (s 03.00)** Introduction to profession; organization and administration of American education at national, state and district school levels; emphasis on school principalship.
- 21.541 SPECIAL EDUCATION FOR EXCEPTIONAL CHILDREN (s 03.00)** Characteristics of exceptional children and of problems in providing education programs to meet their needs. *Prerequisites:* 21.300, 21.320, and 21.340 or 21.350, or the equivalent.
- 21.542 SPECIAL EDUCATION FOR RETARDED PUPILS (s 03.00)** Class work and group activities for retarded children in public and private schools; emphasizes assessment, identification and program development. *Prerequisites:* 21.300, 21.320, and 21.340 or 21.350, or equivalents.
- 21.543 SPECIAL EDUCATION FOR GIFTED PUPILS (s 03.00)** Class work, group, and individual activities for gifted children in elementary and secondary schools; emphasis on identification and program development. *Prerequisites:* 21.300, 21.320, and 21.340 or 21.350, or equivalents.
- 21.551 INTRODUCTION TO COUNSELING (s 03.00)** Designed to give beginning students an overview of fields of counseling, guidance, and psychotherapy. Experience in interviewing skills; information on basic theories of personality, psychotherapy, and counseling. Discussions on roles and qualifications of counselors in various settings and levels of training. Issues of ethics and confidentiality will be reviewed. Course a prerequisite to all other courses in counseling program. *Prerequisites:* graduate standing and permission of the instructor; one course in personality theory is recommended. Requirement: Use of a cassette recorder.
- 21.552 ANALYSIS OF THE INDIVIDUAL FOR COUNSELING (s 03.00)** Overview of appraisal methods and how such methods relate to counseling. Attention given to the interpretation of test data with emphasis on intelligence and LLD measures. Exploration of techniques of psychodiagnostic interviewing and mental status examinations. *Prerequisites:* 21.551 and graduate standing in education or psychology.
- 21.553 TECHNIQUES AND THEORIES OF COUNSELING IN EDUCATION (s 03.00)** Counseling theories and techniques. Examination of contemporary theories of counseling, personality, and psychotherapy; discussion of techniques and issues in counseling; practice interviewing and counseling using specific techniques and methods. *Prerequisites:* 21.551 and 21.552. Graduate standing in education or psychology.
- 21.554 THEORY AND TECHNIQUE OF VOCATIONAL-CAREER COUNSELING (s 03.00)** Administration and interpretation of vocational testing; methods and techniques of preparing and presenting occupational information; research and theories of vocational choice; theories and practices in placement. *Prerequisites:* graduate standing in education and permission of instructor.
- 21.555 GROUP COUNSELING AND GUIDANCE (s 03.00)** Examination of major aspects of group process, dynamics of group interaction, and functions of therapeutic group leadership. Exploration of these issues through class lectures and discussions and by becoming an experiential group. *Prerequisites:* 21.551, 21.553.
- 21.561 STUDENT DEVELOPMENT IN HIGHER EDUCATION (s 03.00)** Philosophical, psychological, and sociological bases for student personnel administration. Emphasis on admission, orientation, counseling, judiciary functions, student activities, financial aids, housing, health services, career counseling and placement in student personnel services in higher education.
- 21.566 SEMINAR: CULTURAL FACTORS IN HIGHER EDUCATION (s 3.00)** Study of the college student and his culture. Emphasis is placed on assessment and evaluation of phenomena in collegiate setting to gain insight into cultural dynamics that bear on student development.
- 21.571 FOUNDATIONS OF READING INSTRUCTION (s 03.00)** Broad considerations underlying teaching of reading with special emphasis on reading disability and problems of retarded reader. *Prerequisite:* 21.300, 21.320, or equivalent.
- 21.572 DEVELOPMENTAL READING (s 03.00)** Consideration of reading as a developmental phenomenon. Begins with prelanguage experiences of infancy and considers each linguistic stage of human development as these developmental aspects are related to reading process. Inquires into basic causes for reading disability and characteristics of each developmental stage of reader from childhood to maturity of adulthood. *Prerequisite:* 21.571.
- 21.581 PHYSICAL SCIENCE FOR ELEMENTARY SCHOOL TEACHERS (s 03.00)** Findings in physical science with special reference to science knowledge expected on part of elementary school teacher. Laboratory experiences provided.

21.582 BIOLOGICAL SCIENCE FOR ELEMENTARY SCHOOL TEACHERS (s 03.00) Findings in biology with special reference to science knowledge expected of elementary school teachers. Laboratory and field experiences provided.

21.583 CURRICULUM CONSTRUCTION (s 03.00) Psychological, cultural, and educational bases of elementary and secondary school curriculum and higher education. Practice in construction of curricula materials. *Prerequisites:* 21.300, 21.320, and 21.340 or the equivalents.

21.584 CURRICULUM SUPERVISION IN SCIENCE EDUCATION (s 03.00) Historical and philosophical development of science education; curriculum trends; pre-service and in-service education; and administrative and instructional issues of interest to individuals in elementary, secondary, and college teaching.

21.585 ENVIRONMENTAL EDUCATION (s 03.00) Purposes of environmental education; processes in determining environmental status of a community; environmental education curricula, elementary school through college; and modes of instruction.

21.586 CURRICULUM AND SUPERVISION IN MATHEMATICS EDUCATION (s 03.00) History and development of mathematics education and curriculum development; pre-service and in-service education for mathematics teachers; special problems area (student option); field experience.

21.587 ANALYSIS OF CLASSROOM TEACHING (s 03.00) For administrators, supervisors, and classroom teachers. Acquaints the student with the research on teacher effectiveness and provides a framework for analysis of teaching styles and strategies. Student encouraged to broaden his own repertoire of teaching behaviors as well as refine his perceptions of instructional interaction.

21.588 CLARIFYING PERSONAL VALUES IN EDUCATION (s 03.00) Experiential course designed for educator and others involved in helping professions. Theory, experiences, and strategies which will help to clarify personal values. Focus will be on decision making, skills-finding alternatives from which to choose, and consequences of the choice. Adaption of clarifying processes to various educational environments.

21.590 INDEPENDENT READING COURSE IN EDUCATION (s 01.00 through 06.00)*

Graduate Courses

21.605 METHODS OF PSYCHO-EDUCATIONAL ASSESSMENT II (s 03.00) Continues 21.504 material. Provides trainees with opportunity to explore techniques of interpersonal and intrapersonal group communication and understanding. Efforts made to relate these explorations to psychological role of teaching.

21.622 DEVELOPMENTAL PSYCHOLOGY (s 03.00) Psychological, physiological, and sociological aspects of human development stressing applicability to educator and educative process.

21.623 LEARNING THEORIES IN EDUCATION (s 03.00) Study of classical and recent theories of learning. Selected research in human learning and principles of learning process. *Prerequisite:* 21.520.

21.624 EDUCATION AND MODERN SOCIAL PROBLEMS (s 03.00) Introduction to educational sociology. Analysis of relationships of schools and society, with emphasis upon modern social problems and impact upon education. *Prerequisite:* graduate standing.

21.625 EDUCATIONAL STATISTICS II (s 03.00) Correlational procedures other than Pearson's sampling technique; significance tests; inference. Various ANOVA models. Underlying assumptions, rationale, and application to educational and psychological research. *Prerequisite:* 21.525 or equivalent.

21.626 COMPUTER APPLICATIONS FOR EDUCATIONAL RESEARCH (s 03.00) Introduction to data coding and transformations; strategies for use of complex analytic techniques, such as multivariate factor analysis; analysis and interpretation of existing data using computer software.

21.627 ADVANCED TESTS AND MEASUREMENTS (s 03.00) Advanced course to give professional competency in development and use of educational and psychological tests and scales. Application of principles of measurement and scaling to both standardized tests and instruments under experimental development.

* See description under "General Curriculum Information" in this publication.

21.631 SCHOOL-COMMUNITY RELATIONS (s 03.00) Aspects of developing and maintaining successful relationships between school administrator, staff, faculty, students, parents and community.

21.632 PROBLEMS IN EDUCATIONAL MANAGEMENT (s 03.00) Case study approach to study of internal school management problems. Problem solving models employed in simulated and real situations.

21.633 FINANCIAL AND BUSINESS ADMINISTRATION FOR SCHOOLS (s 03.00) Principles and practices involved in financing public education at federal, state and local levels. Taxes, bonds, budgets, purchasing systems, accounting systems, and other aspects of school business administration are covered. *Prerequisite:* 21.531 or equivalent.

21.634 ESSENTIALS OF SCHOOL LAW (s 03.00) Study of laws affecting education in United States, with special reference to District of Columbia, Maryland and Virginia.

21.635 ADMINISTRATIVE AND ORGANIZATIONAL THEORY IN EDUCATION (s 03.00) Review of historical and contemporary developments in administrative and organizational theory and research. A thorough multi-disciplinary exploration of literature in leader and organizational behavior and effectiveness.

21.636 ADMINISTRATIVE PROCESSES IN EDUCATION (s 03.00) Study of administrative processes with emphasis on organizing, planning, decision-making, communication, delegation, and evaluation. Applications of systems theory, model building simulation, MBO, PPBS, PERT, CPM, OR, OD and other management tools in education at all levels.

21.637 SCHOOL PERSONNEL ADMINISTRATION (s 03.00) Development of school personnel policies, needs assessment, recruitment, selection, hiring, placement, classification, certification, contracts, tenure, separation, salary schedules, personnel welfare, staff development, and union relations.

21.638 SCHOOL FACILITIES PLANNING (s 03.00) Principles and procedures involved in relating educational philosophies, objectives, curriculum, resources, and projected pupil population to the development of physical facilities. Techniques for needs assessment, development of educational specifications, site selection, finance, and evaluation. Roles of administrators, teachers, consultants, architect, board and community.

21.639 ADMINISTRATION OF EDUCATIONAL MEDIA (s 03.00) Assists college and school administrators in acquiring knowledge and skills involved in planning, financing, supervising, staffing and equipping of educational media services at all levels.

21.641 DEVELOPING ORGANIZATIONAL MODELS IN SPECIAL EDUCATION (s 03.00) Selected technologies drawn from system planning. Selection based on applicability to education, concerning classroom and clinical planning.

21.643 EARLY EDUCATION FOR HANDICAPPED CHILDREN (s 03.00) Conceptual rationale for early intervention. Learning processes in infancy and early childhood. Teaching tactics for exceptional pre-school children. Evaluation of early intervention programs.

21.644 DIAGNOSIS AND CORRECTION OF LEARNING DISABILITIES (s 03.00) Diagnosing general and specific learning disabilities. Developmental and remedial techniques for correction of learning disabilities. Clinical experience. *Prerequisites:* 21.520, 21.525 and permission of instructor.

21.645 LEARNING DISABILITIES I (s 03.00) Examines neurological and developmental aspects of learning disabilities with training and practical experiences in administering Illinois Test of Psycholinguistic Abilities, and others. *Prerequisite:* permission of instructor.

21.646 LEARNING DISABILITIES II (s 03.00) Develops diagnostic capabilities in order to select and design materials and programs for learning-disabled children and youth. *Prerequisite:* 21.645.

21.650 PSYCHOPATHOLOGY I (s 03.00) Overview of counseling, psychotherapy, and psychopathology from a neo-analytic framework. Issues will center around the etiology, psychopathology, symptomatology, and remediation of disordered behavior. *Prerequisites:* doctoral standing in counseling or clinical psychology; a course in personality theory and psychotherapy; permission of the instructor.

21.655 ADVANCED GROUP COUNSELING (s 03.00) Critical examination of client-centered, analytic, transactional, and behavioral approaches to group treatment through readings, films, tapes, and simulated group experiences. *Prerequisites:* 21.555 and permission of instructor.

21.656 ADVANCED PSYCHOLOGICAL EVALUATION (s 03.00) Advanced clinical interpretation of selected psycho-diagnostic instruments. Students expected to be familiar with administration, scoring, and basic interpretation of WAIS/WISC and Rorschach in addition to other clinical psycho-diagnostic instruments. Students present test protocols to discuss finer aspects of advanced clinical interpretation and how these data used in counseling relationship. *Prerequisites:* 21.552, 21.650, and 57.651 or the equivalents, doctoral standing in counselor education or clinical psychology, and permission of instructor.

21.657 SUPERVISION OF COUNSELING (s 03.00 through 06.00) Comparison of various theoretical models underlying supervision. Students become directly involved in supervising paraprofessionals and master degree students as they develop their own skills. *Prerequisites:* 21.659, admission to the doctoral program in counseling and permission of instructor.

21.658 FAMILY SYSTEMS AND FAMILY THERAPY (s 03.00) Family is conceptualized as a system. Particular emphasis is placed on interaction pattern between family members, family crises, diagnosis, and family treatment theories and interventions. Particular emphasis is placed on Conjoint and Multiple Impact Therapy approaches as well as other interdisciplinary and ecological systems of family therapy. *Prerequisites:* 21.551, 21.553, doctoral standing in counseling or psychology, permission of instructor. A course in group counseling is recommended.

21.659 PRACTICUM IN COUNSELING (s 03.00 through 06.00) (*Master Degree Students*): 250 hours per three credits. Students encouraged (not required) to take course for six credits. Students are placed in schools or community agencies, depending on individual's needs and experiences, for approximately three and one-half days per week and return to University for half day seminar. Systematic development of counseling skills and practical experiences are emphasized. Students must make application for Fall semester practicum by July 15 and for Spring semester by November 15. *Prerequisites:* counseling core courses and permission of instructor.

(*Doctoral Degree Students*): Limited semester sequential experience (Fall then Spring) limited to doctoral students. Practicum provides opportunities to observe and participate in many of University Counseling Center's activities. Systematic training using Ivey-Carkhuff model as well as training in behavioral and analytic techniques. Students must make application for Fall semester practicum by July 15. *Prerequisites:* Counseling core courses, doctoral standing, and permission of instructor.

21.662 ORGANIZATION AND ADMINISTRATION OF GUIDANCE SERVICES (s 03.00) Principles, procedures, and practices in organization and administration of guidance services. Special attention to selecting staff, in-service training of staff, organizational patterns, ways of initiating a guidance program, and means of evaluating the program.

21.663 THE COMMUNITY COLLEGE (s 03.00) Community college in United States. Attention focused on organizational patterns, diversity of function, student and faculty, and current problems of two-year institution.

21.664 PRINCIPLES OF COLLEGE TEACHING (s 03.00) Study of teaching on college level. Emphasis on teaching process, college teacher, college student, teaching styles, research, instructional technology and micro-teaching sessions. *Prerequisite:* permission of instructor.

21.665 ORGANIZATION AND ADMINISTRATION IN HIGHER EDUCATION (s 03.00) Theory and practice of organization and administration in higher education. Emphasis on management and leadership, academic affairs, planning techniques, accountability, collective bargaining, legal aspects, business and financial administration, and accounting and reporting in administration in higher education. *Prerequisite:* permission of the instructor.

21.666 LEGAL ASPECTS OF HIGHER EDUCATION (s 03.00) For advanced graduate students pursuing degrees as administrators in higher education. Study of student-institutional relationship, institutional judicial systems, student rights, records, and campus due-process issues.

21.668 CRITIQUE OF INSTITUTIONAL RESEARCH IN HIGHER EDUCATION (s 03.00) Critical examination of prominent institutional research in major divisions of higher education. Reports of Carnegie Commission on Higher Education especially highlighted.

21.671 ADVANCED SEMINAR IN READING (s 03.00) Acquaints students with basic studies and theoretical frameworks relating to language and psycho-linguistics in relation to reading, psychology, and physiology of reading, sociology of reading, and instruction and curriculum development in reading.

21.673 THE DIAGNOSIS OF READING DISABILITY (s 03.00) Diagnosing causes of reading disability and prescribing proper treatment. Practicum work with children who exhibit reading disability. *Prerequisites:* 21.520, 21.571, 21.572, and permission of instructor.

21.676 THE NEW SEX EDUCATION AND COUNSELING (s 03.00) Didactic and experimental course to enable teachers and counselors to develop skills in teaching and counseling in human sexuality grades K through graduate school.

21.677 WORKSHOP IN SEX COUNSELING SKILLS (s 03.00) Development of groups and individual counseling skills essential to counseling of parents, youth, and adults on sex-related problems.

21.678 ADVANCED STUDIES IN HUMAN SEXUALITY (s 03.00) Study of literature, research, historical, and cross-cultural aspects of human sexuality as an interdisciplinary study.

21.679 INSTITUTE ON READING AND LEARNING DISABILITIES (s 03.00) Guided experiences in remedial reading; diagnosis and correction of learning disabilities with children and youth. To be taken in conjunction with 21.673 and 21.644, thus providing students with work toward meeting requirements for teachers of special education, reading specialists, psychologists, counselors, and classroom teachers.

21.682 SCHOOL SUPERVISION (s 03.00) For prospective and in-service supervisors for elementary and secondary schools. Purposes, principles, and techniques of supervision. *Prerequisites:* qualification for a teacher's certificate and/or teaching experience.

21.683 SUPERVISION OF STUDENT TEACHERS (s 03.00) Guidance for supervising teachers and others in work with student teachers. Purposes, principles, and techniques of supervision. *Prerequisites:* qualification for a teacher's certificate and/or teaching experience.

21.684 CURRICULUM CONSTRUCTION II (s 03.00) Application of curriculum theory and principles to construction of elementary, secondary, and college curriculum guides. Exploration of changes and innovations in instructional programs of schools. *Prerequisites:* 21.583 or equivalent.

21.690 INDEPENDENT STUDY PROJECT IN EDUCATION (s 01.00 through 06.00)*

21.705 SEMINAR IN EMOTIONAL DISTURBANCE (s 03.00) For doctoral students dealing with current theories and practices in re-educating emotionally disturbed children and youth. Focus on psycho-educational research reported by National Institutes of Mental Health, Children's Bureau, Bureau of the Handicapped, and Council of Exceptional Children Clearing House System.

21.765 SEMINAR IN STUDENT PERSONNEL ADMINISTRATION IN HIGHER EDUCATION (s 03.00) Critique of issues and problems in contemporary programs of student personnel administration. *Prerequisite:* permission of instructor.

21.769 INTERNSHIP IN STUDENT DEVELOPMENT IN HIGHER EDUCATION (s 03.00 through 06.00) For advanced students in student personnel services in higher education. Students are assigned to area or areas of a program of student personnel services for exploratory administrative case and research experience. *Prerequisite:* permission of instructor.

21.790 EDUCATIONAL RESEARCH (s 03.00) Fundamentals, methodology, and materials for educational research. Required of all students. *Prerequisites:* 21.525 or equivalent, and admission to a graduate degree program in education.

21.791 RESEARCH SEMINAR IN EDUCATION (s 03.00) Seminar-type course in which a comprehensive research paper is required. Designed especially for M.Ed. candidates. A letter grade of B or better required to receive credit for this course. *Prerequisite:* 21.790.

21.792 IN-SERVICE TRAINING PROJECT: INTERNSHIP IN EDUCATION (s 03.00 through 12.00) Internships in cooperating local school systems as integral part of degree programs in areas such as administration, reading, special education, emotional disturbance, and teaching. *Prerequisite:* permission of advisor.

21.797 MASTER'S THESIS SEMINAR (s 01.00 through 06.00) At least three hours required of all students working on a master's thesis. *Prerequisite:* 21.790. Permission of advisor.

21.799 DOCTORAL DISSERTATION SEMINAR (A, B, and C) (s 3.00 through 12.00) Total of twelve semester hours are required of all students working on doctoral dissertations. First three hours, to be known as "21.799-A," concentrates on research design; second three hours, to be known

* See description under "General Curriculum Information" in this publication.

as "21.799-B," to be taken subsequent to 21.799-A, enables student to perfect dissertation proposal; last six hours, to be known as "21.799-C," to be taken subsequent to 21.799-B, are devoted to independent work on dissertation with student's dissertation committee. *Prerequisite* to the 21.799 sequence is 21.790 or its equivalent and advancement to candidacy.

Environmental Studies

DIRECTOR Billy R. Griffin (Biology Department)

Undergraduate Degree Program

Bachelor of Arts

SECOND MAJOR IN ENVIRONMENTAL STUDIES

DESCRIPTION OF THE MAJOR The program, offered *only* as a second major, gives students the opportunity to apply the skills of their primary major to a study of the environment and man's relation to it. The major is administered by an Environmental Studies Committee.

ENVIRONMENTAL STUDIES COMMITTEE The Environmental Studies Committee consists of faculty from various teaching units throughout the University. The current members are W. C. Banta, R. J. Chinnis, E. K. Cornell, B. R. Griffin, R. E. Love, and M. C. Sager.

ADMISSION TO THE MAJOR Students must have declared a primary major and be counseled by a faculty member in the primary major in conjunction with a faculty member on the Environmental Studies Committee.

MAJOR REQUIREMENTS A total of ten and one-half course units is required for the Environmental Studies second major.

Environmental Studies Courses 75.201 Perspectives on Environmental Crises; 75.202 Perspectives on Environmental Management; 75.301 Environmental Studies Colloquium; 75.401 Environmental Studies Senior Research Project.

Additional Courses Seven additional courses chosen from the University curricula at large to form a coherent program relating the student's primary major to environmental studies. Of these seven courses, five must be outside the student's primary major department and primary major degree requirements. Of these, five courses must be xx.300 level or above.

Courses of Instruction

Undergraduate Courses

75.201 PERSPECTIVES ON ENVIRONMENTAL CRISES (c 01.00) Survey of typical environmental problems facing man. Ecological, technological, and cultural implications of environmental problems are considered. Topics include: energy crisis; oil pollution; economic growth; water pollution; population and world food supply. Designed to serve as introductory course for environmental majors. Non-majors may take it as an elective.

75.202 PERSPECTIVES ON ENVIRONMENTAL MANAGEMENT (c 01.00) Comprehensive, multidisciplinary approach to this new profession; includes survey of human sciences, natural sciences, and information sciences as each interacts with government and business practices in development of pathways for sound management of the environment. Emphasis on audio-visual aids: movies, slides, class presentations.

75.301 ENVIRONMENTAL STUDIES COLLOQUIUM (c 00.50) Designed to expose student to ideas, concepts, and theory with discussion and interaction with prominent leaders in environmental field. Attendance, outside readings, and reaction papers are required. May be repeated for credit.

75.401 ENVIRONMENTAL STUDIES SENIOR RESEARCH PROJECT (c 01.00) Students conduct an interdisciplinary environmental research project under the direction of environmental studies major advisor and primary major advisor. Project includes preparation of a final report and presentation in seminar.

History

CHAIRMAN David J. Brandenburg

FULL-TIME FACULTY

Professor C. Anthon, R. Beisner, D. Brandenburg, R. Brown, H. Davis (University Professor Emeritus), J. Finan, D. Gondos (Emeritus), J. Joughin, E. Posner (Emeritus)

Associate Professor T. DiBacco, I. Klein, A. Martin, J. Malloy, C. McLaughlin, W. Wolfe

Assistant Professor V. Allen, A. Kraut, A. Lichtman, T. Murphy, K. Mussell, J. Seigel

FIELDS OF STUDY Ancient history, archives administration, British history, European history, Latin American history, Russian history, United States history. For specific M.A. and Ph.D. fields, see below and consult department.

Undergraduate Degree Programs

Bachelor of Arts, Bachelor of Science

MAJOR IN HISTORY

To receive the B.A. degree in History, a student should take no more than half his courses (sixteen) in history and related fields. A student who takes more than half his courses in history and related fields will receive the B.S. degree.

COMPOSITION AND READING REQUIREMENT See "Undergraduate Degree Requirements" in this publication.

LANGUAGE REQUIREMENTS See opening section under "College of Arts and Sciences" in this publication.

MAJOR REQUIREMENTS

Major Courses Ten courses in history with grades of C (2.00 on a 4.00 scale) or better. (Note: the department will accept some Liberal Studies courses as history courses for the major. Consult the department for advice.) The ten courses should include: (1) one course in either ancient or medieval history (unless Western Civilization I is transferred from another school); (2) one course in the history of an area outside Western Europe and the United States (Note: A student may not present a single course for fulfillment of both (1) and (2) requirements.); (3) historiography; and (4) major seminar, which may not be taken during the same semester as that in which the student practice teaches, and should be taken after historiography.

The department encourages breadth in historical study and discourages specialization at the undergraduate level. History majors should study the history of at least three major geographical regions.

Related Courses Four courses other than history at the xx.300 level or above (from the humanities, social sciences, or natural sciences, or all three), *selected in consultation with a department advisor*. These courses may be concentrated in one discipline as a minor field, or they may be distributed.

Transferred Courses At the discretion of the department, transfer students presenting history transfer credit in values of three semester hours are usually credited with one course unit for each three semester hours in history transferred. Students presenting history transfer credit from the quarter system will usually be credited with one course unit for each two quarter system courses. For courses to be accepted as related courses, they must be above the introductory level.

DEFICIENT GRADES History majors are reminded that grades of D (1.00) are not acceptable for the major or for the related field.

MINIMUM RESIDENCE To receive the bachelor's degree in History, students must take at least five history courses at The American University.

DEPARTMENTAL HONORS Departmental honors in history will be awarded to students who: (1) complete requirements for the B.A. or B.S. in history with an average of 3.20 overall and 3.50 in history; *and* (2) write a research paper or papers of exceptional quality in 29.480 Major Seminar. Nomination for honors will be made by the instructor of the major seminar in which the student writes his research paper or papers. Such nominations must be approved by the department chairman.

HONORARY FRATERNITY Epsilon Psi Chapter of Phi Alpha Theta, an international fraternity for those excelling in history, was established on campus in 1956. Students with three courses in history, B (3.00) average overall, and B+ (3.50) in history are eligible.

THREE YEAR M.A. PROGRAM IN HISTORY The three year M.A. program in History is designed for highly motivated and able students with a view toward expediting their progress toward the M.A. in history. Consideration for this program will be given to undergraduate history majors with junior standing whose academic performance has been exceptional. The students should be able to complete the M.A. within one academic year after completion of the baccalaureate degree. For further information, contact the department chairman.

Graduate Degree Programs

Candidates for graduate degrees in all academic units must meet the requirements set forth in the University Minimum Standards for Graduate Study. The requirements appearing below are those of this department and do not relieve degree candidates from compliance with the minimum standards.

Master of Arts, Doctor of Philosophy

MAJOR IN HISTORY

SUBJECT AREAS OF CONCENTRATION The Department of History offers graduate work leading to the M.A. and Ph.D. degrees with a major in History developed from study in the following subject areas: History of Modern Western Europe (since the fifteenth century); United States History (including colonial); British History; Russian History; South Asian History; Latin American History; Ancient History; and Medieval History. These subject areas represent the strengths of the current department faculty. Graduate work in these subject areas may be taken at both the M.A. and Ph.D. levels, but at the doctoral level Latin American History, Ancient History, and Medieval History are available only as second and third fields, not for concentration or the dissertation. At the master's level, Medieval History is not available as a comprehensive examination field, but may be taken as a second field under Plan II described below.

ADMISSION Admission to the master's and doctoral programs is at the discretion of the department's Graduate Committee, within the framework of the University and College of Arts and Sciences standards. In general, a 3.20 average in the undergraduate major and a 3.00 overall average (on a 4.00 scale) are required. Other uniform requirements are (1) evidence of at least a substantial beginning in one foreign language, (2) results of the Graduate Record Examinations (Verbal, Quantitative, and Advanced Test in major subject), and (3) letters of recommendation from two professors with whom work was taken recently.

Provisional admission to both the master's and doctoral programs may be extended in certain cases where the above standards are not fully met. Upon completion of twelve semester hours of course work taken for conventional (A–F) letter grade credit, provisionally admitted students must then apply for full admission.

Admission to or completion of the master's program does not insure admission to the doctoral program. No graduate degree in history at The American University can be earned in Summer Sessions alone.

PROGRAM PLANNING A candidate beginning work in history plans a program of concentration within a particular subject area to suit his individual background and career plans. A program of concentration may be constructed only in a subject area for which there is existing faculty strength. Such a program may, however, include fields, course offerings, and comprehensive examinations in other departments and schools at the University and in The Consortium of Universities of the Washington Metropolitan Area.

In consultation with a faculty advisor, and with approval of the department's Graduate Committee, both master's and doctoral candidates may design fields such as the following: (1) broad chronological or topical fields emphasizing comprehensiveness; (2) fields defined in a more restricted manner, whether as to theme or chronology, emphasizing depth; (3) comparative cross-disciplinary fields emphasizing varying degrees of breadth and depth; and (4) fields in other disciplines related to the candidate's subject area of concentration.

For the master's degree, a candidate plans a program based on one or two fields, Plan I concentrates the candidate's work in a single field of history. Plan II provides work in two fields of history,

or a field in history and a related field. In both cases, one historical field will be examined by written comprehensive examination. In Plan II, the second field is completed through twelve hours of courses taken for a conventional letter grade (A–F).

The first comprehensive examination taken by a doctoral candidate is considered to be the qualifying examination and must be taken before completion of twenty-four semester hours.

For the doctoral degree, a candidate plans a program based on four fields. The candidate's mastery of these fields will be tested by three written comprehensive examinations and one oral examination; the oral normally covering the field in which the candidate plans to write the dissertation. At least one field must be from among the following: an historical field outside the main subject area of concentration, either chronologically or geographically; a comparative or cross-disciplinary field; or a field in another discipline. Upon the advisor's recommendation and the approval of the department's Graduate Committee, one field may be the master's examination taken at The American University. In a case where a candidate has passed a comparable examination elsewhere, he may take this examination in oral form early in the first year with the assurance that an unsatisfactory performance will not prejudice his record or the opportunity to take a written examination subsequently in the same field.

In case of failure, any re-examination is subject to the discretion of the department.

For further details regarding rules and procedures in program planning, consult the department.

COURSE WORK For the master's degree, thirty hours of approved graduate course work. For the doctoral degree, forty-two hours of approved graduate course work beyond the thirty hours taken for the master's, including twelve to twenty-four hours of dissertation seminar. Some of these courses may be taken, upon the advisor's advice, for P (pass/fail) credit. Research seminars and colloquia must be taken for conventional letter grade (A–F) credit.

RESEARCH SEMINARS For the master's and doctoral degrees, two research seminars (six hours) will be taken. For the doctoral degree, one of the seminars will be devoted to developing a dissertation topic. Substantial papers will be required in all seminars; for credit towards the degree, letter grades of B or better on research papers are required.

If desired by the candidate, or prescribed by the advisor, a candidate for the master's may write a thesis in lieu of two substantial research papers. It is expected that a thesis will be written only if the candidate has either a strong focused research interest, or, in view of those who work with him, needs to experience the larger discipline of a major research and writing effort.

COLLOQUIA For the master's degree, two colloquia, or, upon the advisor's recommendation, suitable substitutes (six hours). For the doctoral degree, one colloquium, or, upon the advisor's recommendation, a suitable substitute (three hours). If offered, a colloquium for double credit (six hours) will satisfy the two colloquia requirement.

LANGUAGES For master's candidates, an intermediate level background in one foreign language is required. Candidates for the master's who have completed with grades of C or better second semester of intermediate level college courses in one language (second year college level), or equivalent, within five years preceding admission will be regarded as having satisfied the foreign language background requirement. The language will be from the following: German, French, Russian, or Spanish. On the advisor's recommendation and the approval of the department's Graduate Committee, a different language may be substituted. If a candidate cannot meet the background requirement as stated above, the language requirement may be met by successful completion of a foreign language reading course or a proficiency examination. For further information, consult the department.

Doctoral candidates must satisfy two tool of research requirements. Normally these will be two foreign languages, at least one of which must be met by passing a proficiency examination. The second language requirement may be met through a recent satisfactory background experience in the language consisting of, or equivalent to, an intermediate level college language course. When approved by the student's advisor and the department's Graduate Committee, a student may substitute quantitative techniques or statistics for the second language requirement. The Graduate Committee will stipulate the mode for meeting this requirement.

Note: The ability to carry on research in a foreign language may be required for admission to a graduate research seminar at the discretion of the instructor.

TIME-TABLE Full-time master's candidates should plan to finish the degree in one calendar year from the time of entry into the program; part-time students in no more than three calendar years.

Doctoral candidates are encouraged to complete all requirements within three years, but must do so within five calendar years after entering the doctoral program. Full-time doctoral students should plan to complete all course, language, and comprehensive examination requirements by the end of the second academic year after entry into the doctoral program. All graduate students must be registered continuously, except in Summer Sessions.

All master's candidates should complete the foreign language requirement before taking their comprehensive examination. All doctoral candidates should complete language requirements before taking examinations in their second field, but *must* do so before taking their last comprehensive examination.

GRADE AVERAGE The minimum cumulative grade point average required to maintain good standing in the master's and doctoral programs is B or 3.00 (on a 4.00 scale).

DOCTORAL DISSERTATION Doctoral candidates must complete a dissertation and defend it in oral examination.

COMPREHENSIVE EXAMINATION STANDARD FIELDS Fields chosen from the following list must conform to graduate program planning procedures, but do not require detailed description or approval by the examining faculty. A field which is made by combining two or more fields from the list will be identified by combining appropriate numbers, e.g., 29.240/250 U.S. History 1789 to the Present. Because a master's level field must meet minimum requirements for chronological coverage (one or three centuries of general history), not all standard fields qualify as master's level examinations.

Europe 29.010 History of Modern Western Europe since 1500; 29.011 History of the Renaissance and Reformation, 1300–1600; 29.012 History of Early Modern Europe, 1600–1763; 29.013 History of the Age of the French Revolution and Napoleon, 1763–1814; 29.014 History of Europe, 1815–1914; 29.015 History of Europe since 1914; 29.016 European Diplomatic History; 29.017 European Intellectual History; 29.018 European Economic History.

United States 29.020 History of the United States (including colonial); 29.021 History of the United States, 1607–1865; 29.022 History of the United States since 1840; 29.023 The United States Colonial Period, Revolution, and Constitution; 29.024 The Middle Period in United States History, 1789–1877; 29.025 Recent United States History since 1877; 29.026 Diplomatic History; 29.027 United States Intellectual History; 29.028 United States Economic History.

Latin America 29.030 History of Latin America; 29.031 The Colonial Origins of Latin America and the Achievement of Independence; 29.032 Latin America since 1850; 29.033 Latin American Diplomatic History; 29.034 Latin American Intellectual History.

Russia 29.040 History of Russia, 1462–1964; 29.041 History of Russia prior to Peter the Great; 29.042 History of Imperial Russia, 1700–1917; 29.043 History of Russia in the Twentieth Century; 29.044 Russian Intellectual History since 1700; 29.045 Russian Social History.

British Isles 29.050 History of the British Isles to 1689; 29.051 History of the British Isles since 1689; 29.052 History of Britain and the Empire to 1783; 29.053 History of Britain, the Empire, and Commonwealth since 1783; 29.054 History of the British Isles to 1485; 29.055 History of the British Isles, 1845–1688; 29.056 History of the British Isles, 1688–1815; 29.057 History of the British Isles since 1815.

South Asia 29.060 History of South Asia; 29.061 History of South Asia since 1815; 29.062 South Asian Diplomacy and International Relations.

Ancient 29.070 Classical History; 29.071 Greek History; 29.072 Roman History.

Archives 29.080 History and Administration of Archives.

COMPREHENSIVE EXAMINATION INDIVIDUALLY DEFINED FIELDS Individually defined fields must comply in full with the program planning procedures stated above. The student may select from: 29.100 Individual Field in the History of Modern Western Europe; 29.200 Individual Field in the History of the United States; 29.300 Individual Field in the History of Latin America; 29.400 Individual Field in the History of Russia; 29.500 Individual Field in the History of Britain and the Empire; 29.600 Individual Field in the History of South Asia; 29.700 Individual Field in Ancient History; 29.800 Individual Field in the History of a Single Country; 29.900 Individual Field in Comparative History; 29.1000 Individual Field in Interdisciplinary Study.

Courses of Instruction

Undergraduate Courses

29.200 UNDERGRADUATE SEMINAR (c 01.00) Research on group basis in selected historical topics.

29.201 THE ANCIENT WORLD: THE ANCIENT NEAR EAST (c 01.00) Sumer, Akkad, Babylonia, Egypt, Israel, Assyria, Persia.

29.202 THE ANCIENT WORLD: GREECE (c 01.00)

29.203 THE ANCIENT WORLD: ROME (c 01.00)

29.204 MEDIEVAL EUROPE (c 01.00) Topics in medieval political, social, religious and economic history.

29.205 MODERN EUROPE I (c 01.00) How the ground was laid for Eurocentrism. Revolutions in religion, geography, and science. Society and politics in emerging modern state. European expansion—first phase. Enlightenment and Reason—and Unreason: Age of French Revolution and Napoleon.

29.206 MODERN EUROPE II (c 01.00) Conservative reaction and resurgent nationalism. Liberalism, industrialism, socialism, and middle-class conquest. Rampant technology, retreat from reason, and world-war insanity. Decline of nation-state. Shrunken Europe and third-world tensions.

29.207 HISTORY OF THE UNITED STATES I (c 01.00) Survey giving comprehensive history of our country from colonial times to Civil War.

29.208 HISTORY OF THE UNITED STATES II (c 01.00) Survey giving comprehensive history of our country from Civil War to present.

29.221 HISTORY OF ENGLAND I (c 01.00) Political, economic, social and cultural life in England to 1689. Origins and development of constitutional government. Beginnings of empire.

29.222 HISTORY OF ENGLAND II (c 01.00) Great Britain and British Empire since 1689. Evolution of constitutional government, economic growth and social reform, expansion of empire, and commonwealth since World War II.

29.231 THE EMERGENCE OF MODERN RUSSIA, 1462–1881 (c 01.00) Survey of Russian history with emphasis on autocracy, fate of peasantry, economic and cultural developments, and period of modernization.

29.232 REVOLUTIONARY AND SOVIET RUSSIA, 1881–1964 (c 01.00) Focus on revolutionary movement, rise of industrialization, Revolution of 1917, and internal political, social and economic development of Soviet Russia.

29.241 COLONIAL LATIN AMERICA (c 01.00) Conquest and change in Indian civilization; imperial politics; race and class; Indian labor and the Black legend; imperial economic relations; imperial reform and revolution.

29.242 LATIN AMERICA SINCE INDEPENDENCE (c 01.00) Problems in creating nations; militarism, dictatorship and democracy; sources of underdevelopment; reform and revolution in twentieth century.

29.250 MODERN ASIA (c 01.00) History and culture of the great Asian civilizations during past two centuries. Analyzes Asian societies at time of advent of the West in Asia and Western impact, cultural and social change, rise of Asian nationalism, recent revolutions, politics and international relations.

29.260 COMPARATIVE STUDIES (c 01.00) Broad and comparative studies of major themes in history and society; interdisciplinary in orientation or dealing historically with questions of significance in the social sciences, humanities, or modern life.

XX.300 LEVEL RUBRICS (29.300 through 29.321)

May be taken more than once with permission of department.

29.300 ANCIENT STUDIES (c 01.00) Topical and chronological courses in ancient history. Examples include: (1) Greece in the Age of Tyrants; (2) Greek Oligarchy—The Spartan and Corinthian Experience; (3) Classical Greece; (4) Greece in the Fourth Century; (5) Major Greek Historians;

(6) The Roman Republic; (7) The Roman Empire; (8) Major Roman Historians; (9) Historiography of the Comparative Causes of War in Antiquity. Meets jointly with 29.600.

29.310 CHANGE AND REVOLUTION IN EUROPE (c 01.00) Topical and chronological courses in Modern European history from the fifteenth century to the present. Examples include: (1) Renaissance Civilization; (2) Reformation History; (3) The Crisis of the Seventeenth Century; (4) The French Revolution; (5) 19th-century Revolutions; (6) the Impact of Industrialization on European Society. Meets jointly with 29.610.

29.311 EUROPEAN NATIONAL DEVELOPMENT (c 01.00) Topical and chronological courses in European history stressing national developments. Examples include: (1) Modern France; (2) Germany from Bismarck to Brandt; (3) Nazi Germany; (4) Eastern Europe in the Age of Nationalism. Meets jointly with 29.611.

29.312 EUROPEAN THOUGHT, POLITICS AND SOCIETY (c 01.00) Topical and chronological courses in European intellectual, political, and socio-economic history. Examples include: (1) Early Modern Intellectual History; (2) Modern Intellectual History; (3) The Ancien Regime; (4) Modern European Economic and Social History; (5) The Americanization of Europe; (6) Diplomacy, War and Social Change: Napoleon to Hitler. Meets jointly with 29.612.

29.313 BRITISH STUDIES (c 01.00) Topical and chronological courses in British history. Examples include: (1) The Tudors—personality and kingship; (2) The Century of Revolution—an explanation of the revolutions of the 1640's and 1688–89; (3) The Anatomy of Reform from the Late Eighteenth Century to the Present; (4) Ireland from the Flight of the Earls; (5) The Origins of Modern British Society; (6) The Party System; (7) Individual Liberty—law, morality and personal freedom from the middle ages to the Wolfenden Committee Report; (8) The Community of the Shire; (9) Popular Reaction of Economic and Social Change—Robin Hood and Wat Tyler to Ned Ludd and Captain Swing. Meets jointly with 29.613

29.315 LATIN AMERICAN STUDIES (c 01.00) Topical and chronological courses in Latin American history. Examples include: (1) Diplomatic History of Latin America; (2) Intellectual History; (3) Comparative History of the Americas; (4) Imperialism and Dependency in Historical Perspective; (5) Twentieth Century Revolutions in Mexico and the Caribbean; (6) Change and Revolution in Spanish South America; (7) History of the Foreign Policies of Argentina, Brazil, Chile and Mexico in the Twentieth Century. Meets jointly with 29.615.

29.316 RUSSIAN STUDIES (c 01.00) Topical and chronological courses in Russian history. Examples include: (1) Autocracy and Modernization, 1861–1905; (2) Russia on the Eve of Revolution, 1905–1917; (3) Russia and the West; (4) The Peasantry in Russia; (5) Intellectual History; (6) The Growth of Autocracy; (7) Soviet Politics and Culture. Meets jointly with 29.616.

29.317 ASIAN STUDIES (c 01.00) Topical and chronological courses in Asian history. Examples include: (1) Modern Japanese History; (2) Topics in Indian History; (3) Chinese History. Meets jointly with 29.617.

29.318 CONTEMPORARY STUDIES (c 01.00) Social and political studies on a historical basis that deal directly with contemporary life and society, or with themes in twentieth century history that have contemporary importance. Examples include: Totalitarianism. Racism, Imperialism, Democracy, Modernization, Psycho-history and Environmentalism. Also general courses in recent European history. Meets jointly with 29.618.

29.319 GROWTH AND PROCESS IN AMERICAN HISTORY (c 01.00) Topical and chronological courses stressing the developmental aspects of American history and the historical profession. Examples include: (1) Colonial History; (2) Nineteenth Century History; (3) Recent History; (4) Diplomatic History; (5) Economic History; (6) Quantification in History. Meets jointly with 29.619.

29.320 CONFLICT AND CRISIS IN AMERICAN HISTORY (c 01.00) Topical and chronological courses with focus on turning points in American history. Examples include: (1) The Revolution; (2) Civil War and Reconstruction; (3) Industrialization; (4) Urbanization; (5) Populism; (6) The World Wars. Meets jointly with 29.620.

29.321 COMPARATIVE APPROACH IN UNITED STATES HISTORY (c 01.00) Contrast and comparison of social, political, economic and diplomatic history of United States with that of other nations, as for example, slavery in the Americas. Contrast and comparison of regions, institutions, and ideas within U.S. Meets jointly with 29.621.

XX.300 LEVEL COURSES OFFERED REGULARLY BY THE DEPARTMENT

29.322 HISTORY OF INDIA I (c 01.00) Broad survey, by topics, not chronological, of Indian civilization through period of Moghul rule, ending in eighteenth century. Discussions center on such themes as kingship, social organization, laws, religious thought, economic institutions, aesthetics, external relations. Diversified readings expose students to contributions of major historians working in fields covered. Meets jointly with 29.622.

29.323 HISTORY OF INDIA II (c 01.00) At end of Moghul rule India gradually entered modern phase of its history. Course traces this progression in politics (under British auspices), in social change (under Indian sponsorship), and in terms of economic behavior and international relationships. Theme is an effort to grasp meaning of contemporary Indian civilization through study of its recent past. Meets jointly with 29.623.

29.324 SOCIAL HISTORY OF THE UNITED STATES I (c 01.00) Social factors in U.S. history from colonial times to Civil War. Emphasis upon family, labor, immigration, slavery, religion, westward movement.

29.325 SOCIAL HISTORY OF THE UNITED STATES II (c 01.00) Analysis of American society since Civil War, with special attention to social classes and ethnic groups, industrialism, technology, social gospel, social welfare and urban developments.

29.326 THE CITY IN HISTORY I (c 01.00) Historical development of city; place of city in history of civilization; city as blessing and as problem.

29.327 THE CITY IN HISTORY II (c 01.00) Selected topics in American urban history.

29.328 INTELLECTUAL HISTORY OF THE UNITED STATES I (c 01.00) Ideas and attitudes of American people and their leaders from colonial times to Civil War. Puritanism, enlightenment, transcendentalism, democracy and nationalism. Meets jointly with 29.628.

29.329 INTELLECTUAL HISTORY OF THE UNITED STATES II (c 01.00) Dominant patterns of American thought from Civil War to present. Impact of Darwinian evolution, industrialism, vanishing frontier, progressive democracy, imperialism and war. Meets jointly with 29.629.

29.332 THE AFRO-AMERICAN IN UNITED STATES HISTORY (c 01.00) Experience of Blacks in America from 1619 to present. Contributions Blacks have made to American society and effect of White society upon Blacks. Suggested prerequisites: 29.207 and 29.208.

29.333 HISTORY OF ARCHIVAL ADMINISTRATION (c 01.00) Nature of archives and concepts of archival administration. Comparative survey of history and present practices in principal countries of the world, with special emphasis on U.S. Meets jointly with 29.633.

29.334 ADMINISTRATION OF MODERN ARCHIVES (c 01.00) Nature, value and use of public and private archives. Principles and techniques for appraisal, preservation, arrangement, description and reference service for archives, personal papers and historical manuscripts. Survey of American archival agencies. Meets jointly with 29.634.

29.390 INDEPENDENT READING COURSE IN HISTORY (c 00.25 through 02.00)*

XX.400 LEVEL

29.401 HISTORIOGRAPHY (c 01.00) Analysis of major historians and historiographical problems in U.S., Europe and other areas. For history majors with junior or senior standing. Open to non-majors on room-available basis.

29.450 SELECTED TOPICS IN HISTORY AND SOCIETY (c 01.00) Particular themes or aspects of history and social change, such as diplomacy, war, intellectual or economic development, public interest, health and welfare, in which relatively limited but vital areas of historical development are explored in-depth.

29.480 MAJOR SEMINAR (c 01.00) Methods and materials for historical research and writing, with special emphasis on resources in Washington area. Should not be taken during same semester as that in which student practices teaching. Should be taken after historiography or historical methods.

29.490 INDEPENDENT STUDY PROJECT IN HISTORY (c 00.25 through 02.00)*

* See description under "General Curriculum Information" in this publication.

Graduate and Advanced Undergraduate Courses

29.550 INSTITUTE IN ADMINISTRATION OF MODERN ARCHIVES (s 03.00) Nature, value and use of public and private archives. Principles and techniques for appraisal, preservation, arrangement, description, and reference for archives, personal papers, and historical manuscripts. Offered by the Department of History in conjunction with National Archives and Records Service.

29.590 INDEPENDENT READING COURSE IN HISTORY (s 01.00 through 06.00)*

Graduate Courses

XX.600 LEVEL RUBRICS

Courses numbered 29.600 through 29.650 meet jointly with courses described under the xx.300 level rubrics heading. Registration at the xx.600 level implies graduate level assignments and higher expectations regarding performance. Courses 29.600 through 29.621 and 29.650 may be taken more than once with permission of department.

29.600 ANCIENT STUDIES (s 03.00) See description under 29.300.

29.610 CHANGE AND REVOLUTION IN EUROPE (s 03.00) See description under 29.310.

29.611 EUROPEAN NATIONAL DEVELOPMENT (s 03.00) See description under 29.311.

29.612 EUROPEAN THOUGHT, POLITICS AND SOCIETY (s 03.00) See description under 29.312.

29.613 BRITISH STUDIES (s 03.00) See description under 29.313.

29.615 LATIN AMERICAN STUDIES (s 03.00) See description under 29.315.

29.616 RUSSIAN STUDIES (s 03.00) See description under 29.316.

29.617 ASIAN STUDIES (s 03.00) See description under 29.317.

29.618 CONTEMPORARY STUDIES (s 03.00) See description under 29.318.

29.619 GROWTH AND PROCESS IN AMERICAN HISTORY (s 03.00) See description under 29.319.

29.620 CONFLICT AND CRISIS IN AMERICAN HISTORY (s 03.00) See description under 29.320.

29.621 COMPARATIVE APPROACH IN UNITED STATES HISTORY (s 03.00) See description under 29.321.

29.622 HISTORY OF INDIA I (s 03.00) See description under 29.322.

29.623 HISTORY OF INDIA II (s 03.00) See description under 29.323.

29.628 INTELLECTUAL HISTORY OF THE UNITED STATES I (s 03.00) See description under 29.328.

29.629 INTELLECTUAL HISTORY OF THE UNITED STATES II (s 03.00) See description under 29.329.

29.633 HISTORY OF ARCHIVAL ADMINISTRATION (s 03.00) See description under 29.333.

29.634 ADMINISTRATION OF MODERN ARCHIVES (s 03.00) See description under 29.334.

29.650 SELECTED TOPICS IN HISTORY AND SOCIETY (s 03.00)

29.690 INDEPENDENT STUDY PROJECT IN HISTORY (s 01.00 through 06.00)*

XX.700 LEVEL

COLLOQUIA

29.721 COLLOQUIUM IN MODERN WESTERN EUROPEAN HISTORY I (s 03.00)

29.722 COLLOQUIUM IN MODERN WESTERN EUROPEAN HISTORY II (s 03.00)

29.723 COLLOQUIUM IN BRITISH HISTORY I (s 03.00)

29.724 COLLOQUIUM IN BRITISH HISTORY II (s 03.00)

29.725 COLLOQUIUM IN RUSSIAN HISTORY I (s 03.00)

29.726 COLLOQUIUM IN RUSSIAN HISTORY II (s 03.00)

* See description under "General Curriculum Information" in this publication.

29.727 COLLOQUIUM IN UNITED STATES HISTORY I (s 03.00)

29.728 COLLOQUIUM IN UNITED STATES HISTORY II (s 03.00)

RESEARCH SEMINARS

29.751 RESEARCH SEMINAR IN EUROPEAN HISTORY (s 03.00)

29.752 RESEARCH SEMINAR IN UNITED STATES HISTORY (s 03.00)

29.797 MASTER'S THESIS SEMINAR (s 01.00 through 06.00)

29.799 DOCTORAL DISSERTATION SEMINAR (s 01.00 through 12.00)

Interdepartmental Science

COORDINATOR Matthew F. Norton (Chemistry Department)

FACULTY Faculties of the departments of Biology, Chemistry, Mathematics and Statistics, Physics, and Psychology

FIELDS OF STUDY Biology, chemistry, mathematics, physics, psychology.

Undergraduate Degree Program

Bachelor of Science

MAJOR IN DISTRIBUTED SCIENCE

ADMISSION TO THE MAJOR The University offers a program leading to the Bachelor of Science degree with a major in distributed sciences for students who have been admitted to the College of Arts and Sciences and wish to receive a broader background in science at the undergraduate level than is afforded by the usual Bachelor of Science degree. The degree is planned to meet pre-medical and pre-dental requirements of medical and dental schools as well as the subject content requirements for the secondary school teaching certificate.

Students majoring in distributed sciences may select their major courses primarily from offerings in the fields of biology, chemistry, mathematics, physics, and psychology. Students interested in a program in distributed sciences should consult the chairman of the science department in which they elect to complete the largest number of courses. The chairman of the department will assign an advisor early in the program. A minimum of seventeen courses in the combined science mathematics major and related courses must be completed to qualify for the degree. If psychology is selected for this program, the courses must be experimental or natural-science related; approval must be obtained from the Psychology Department advisor; and 57.200 Introductory Survey of Psychology, is to be considered as a tool course.

The following courses (or similar courses) may not be used as credit towards meeting the requirements for this major, though they may be used toward meeting the thirty-two course unit University requirement: (1) biology: 09.120 Microbes and Man; (2) chemistry: 15.101 Chemistry and Society; 15.160 Natural Sciences I; 15.161 Natural Sciences II; (3) mathematics: 41.101 Applied Calculus I; 41.102 Applied Calculus II; 41.105 The Nature of Mathematics I; 41.106 The Nature of Mathematics II; (4) physics: 51.101 Sound, Light, and the Arts; 51.102 Science, Culture, and Life Styles; 51.103 Science and Public Affairs; 51.200 Physics as Natural Philosophy; 51.204 Population, Resources, and the Energy Crisis; 51.210 Concepts in Physics. For those who are emphasizing biology, 41.101 and 41.102 are acceptable.

COMPOSITION AND READING REQUIREMENT See "Undergraduate Degree Requirements" in this publication.

LANGUAGE REQUIREMENT See opening section under "College of Arts and Sciences" in this publication.

DEPARTMENTAL REQUIREMENTS

Major Courses (1) Six courses in one science; (2) three courses in a second science; (3) two courses in a third science; (4) two courses in a fourth science; and (5) two additional courses in *either* (1) or (2).

Related Courses Two courses (one each) selected from anthropology, economics, psychology, Logic and the Scientific Methods (philosophy), and Physics as Natural Philosophy (physics).

TOOL COURSES 41.101 Applied Calculus I; 41.260 Introduction to Computing (strongly recommended). Students mathematics as one of the major courses should consult the Department of Mathematics and Statistics for exceptions to these tool courses.

ELECTIVES To complete a minimum of thirty-two course units.

Graduate Degree Program

Candidates for graduate degrees in all academic units must meet the requirements set forth in the University Minimum Standards for Graduate Study. The requirements appearing below are those of this department and do not relieve degree candidates from compliance with the minimum standards.

Master of Science in Science Teaching

MAJOR IN SCIENCE TEACHING

ADMISSION The degree of M.S.S.T. is administered jointly by the departments of the sciences, the Department of Mathematics and Statistics, and the School of Education in the College of Arts and Sciences. A student interested in the M.S.S.T. program should consult Dr. Matthew Norton, Chemistry Department, Dr. Robert Chinnis, School of Education, and the chairman of the science department in which he plans to concentrate. The chairman of that department will assign an advisor.

The School of Education requires that students complete either the Graduate Record Examination or the Miller Analogies Test.

COURSE REQUIREMENTS A minimum of thirty hours of approved graduate work with six or more hours taken in the concentration. The student's undergraduate and graduate courses in the concentration must total a minimum of thirty-two semester hours.

OTHER REQUIREMENTS (1) A minimum of eight hours in a second science field. (2) One year of college mathematics (algebra and analytic geometry or equivalent) taken either before entering the M.S.S.T. program or as a non-credit course along with the courses taken for graduate credit. (3) Six hours of graduate courses in education upon consultation with the M.S.S.T. advisor in the School of Education. These courses should be related to one of the comprehensive examinations in education. The comprehensive fields in education may be selected from the following areas: History and Philosophy of Education, Psychology of Education, and Science Education.

A limited number of courses (twelve semester hours) from the xx.300-xx.400 levels may be used toward the requirements of this degree. These courses may be selected from: (1) biology: 09.304 Comparative Plant Anatomy; 09.335 Vertebrate Physiology; 09.340 Microbiology; 09.341 Microbiology Laboratory; 09.356 Genetics; (2) mathematics: 41.310 Linear Algebra; 41.321 Differential Equations; 41.322 Calculus IV; 41.360 Structures and Programming Techniques; 41.461 Numerical Analysis: Algebra; 41.474 Probability; (3) physics: 51.330 Basic Concepts in Mechanics; 51.350 Basic Concepts in Electromagnetism; 51.370 Basic Concepts in Modern Physics.

WRITTEN COMPREHENSIVE EXAMINATIONS Two, including one field in the sciences or mathematics and one in education. Education comprehensives: 21.001, 21.002, or 21.008. Science or mathematics comprehensives: see appropriate department listings. Persons taking the degree in biology must consult the department chairman well before applying for the comprehensive examination.

Jewish Studies

DIRECTOR Gershon Greenberg

FULL-TIME FACULTY

Professor A. Perlmutter, T. Rosché

Associate Professor G. Greenberg

Assistant Professor E. Joyce, J. Siegel

Visiting Professor A. Lustig

Language Specialist E. Robbins

FIELDS OF STUDY Interdisciplinary program with course work taken in Jewish studies, language, philosophy, religion, history, literature, government, sociology, international relations, and education.

Undergraduate Degree Program

Bachelor of Arts

MAJOR IN JEWISH STUDIES

The Bachelor of Arts in Jewish Studies is granted by the College of Arts and Sciences. Inquiries about the program should be directed to the director of the Jewish Studies Program.

ADMISSION TO THE MAJOR Applications for the Jewish Studies major are reviewed in the second semester of the sophomore year. Admission to the major is based on a personal interview, a written statement of the student's course plans, personal and professional goals, and a grade point average of 2.75 (on a 4.00 scale).

COMPOSITION AND READING REQUIREMENT See "Undergraduate Degree Requirements" in this publication.

LANGUAGE REQUIREMENTS Students must demonstrate reading proficiency in Hebrew. This may be done by completing four semesters of Hebrew at The American University through the intermediate level, plus one semester of 36.328 Hebrew and Aramaic Texts; or, by completing equivalent work at an accredited Israeli *ulpan*; or, by successfully completing a text examination administered by the Department of Language and Foreign Studies, The American University.

MAJOR REQUIREMENTS The major requirements total sixteen course units composed of the following groups:

Jewish Studies Courses 34.301 Hebrew and Jewish Literature in Translation I; 34.302 Hebrew and Jewish Literature in Translation II; 34.305 History of the Jewish People I; 34.306 History of the Jewish People II; 34.481 Senior Seminar in Jewish Studies.

Courses in Other Disciplines 36.128 Elementary Hebrew I;* 36.129 Elementary Hebrew II;* 36.228 Intermediate Hebrew I;* 36.229 Intermediate Hebrew II;* 36.328 Hebrew and Aramaic Texts;* 61.150 Biblical Hebrew Scriptures; 61.320 History of Jewish Thought I (Morris Gewirz Series in Jewish Thought); 61.321 History of Jewish Thought II (Morris Gewirz Series in Jewish Thought).

Special Electives Three elective courses selected from Jewish Studies Program offerings or other departmental offerings, or both. Consult the chairman for the list of courses which may be used to satisfy this requirement.

THE MORRIS GEWIRZ SERIES IN JEWISH THOUGHT This program was established in 1975 through a grant from the family of the late Morris Gewirz, noted Washington Jewish philanthropist, in memory of his dedication to Jewish education. The series includes a two semester survey of the development of Jewish thought (61.320 and 61.321 History of Jewish Thought I and II) and one course each semester dealing with a specific aspect of Jewish thought (61.350 Special Studies in Jewish Religious Thought). For further information about the courses in the series, consult the Courses of Instruction under "Philosophy and Religion" in this publication.

STUDY ABROAD The Jewish Studies Program encourages students to complete some of their studies in Israel. The American University and The George Washington University sponsor a five-week summer Institute in Israel, for which students may earn up to two course units credit applicable to the Jewish Studies major. The summer institute is led by professors from the sponsoring universities, and includes lectures and field trips. For details about each summer institute, contact the Jewish Studies Program office.

Students may also study in Israel to complete an *ulpan* for the intensive study of Hebrew, or a full semester or year of study at an accredited university. Arrangements may be made through offices in New York, and credit toward the Jewish Studies major may be obtained through prior agreement with the student's advisor. The Jewish Studies program office maintains current information about course offerings at accredited Israeli institutions and will assist students in planning for study in Israel.

*See Language Requirement above.

Courses of Instruction

Undergraduate Courses

34.101 INTRODUCTION TO JEWS AND JUDAISM (c 01.00) Survey of the varieties of Jewish life and thought, including social and political history, theology, philosophy, and literary expression from biblical times to the present.

34.301 HEBREW AND JEWISH LITERATURE IN TRANSLATION I (c 01.00) Survey of varieties of post-Biblical literature in translation, including Biblical interpretation, legend, legal texts, poetry and folklore, through middle ages. Consideration given to literary styles, social context and patterns of development. *Prerequisite:* 34.101.

34.302 HEBREW AND JEWISH LITERATURE IN TRANSLATION II (c 01.00) Continuation of 34.301 Modern and contemporary varieties of literature. *Prerequisite:* 34.101 or equivalent.

34.305 HISTORY OF THE JEWISH PEOPLE I (c 01.00) Chronological survey of history of the Jewish people from Abraham (ca 1750 B.C.) to First Crusade (1096 A.D.). Emphasis on social, economic, political, and demographic factors in development of Jewish societies, in Israel, and Diaspora. *Prerequisite:* 34.101 or equivalent.

34.306 HISTORY OF THE JEWISH PEOPLE II (c 01.00) Continuation of 34.305. Development of Jewish life in Europe, Mediterranean countries (including North Africa) and in North America, from First Crusade (1096 A.D.) until present. Jewish migrations, structure of Jewish society, and economic and religious role of Jews, especially modern Europe, America, and Middle East. *Prerequisite:* 34.101 or equivalent.

34.390 INDEPENDENT READING COURSE IN JEWISH STUDIES (c 00.25 through 02.00)*

34.401 SPECIAL STUDIES IN JEWISH LITERATURE IN TRANSLATION (c 01.00) Topics offered on rotating basis, including: Jewish bibliography, selected modern texts, Biblical exegesis, Holocaust literature, etc.

34.405 JEWISH HISTORY: TALMUDIC AND GAONIC PERIOD (c 01.00) Social and legal structure of Jewish communities under Roman, Byzantine, Persian, and Muslim rule, from 200 A.D. to thirteenth century. Emphasis on original sources (in translation) as basis for reconstructing political and economic conditions in which Jewish communities existed and functioned. Meets jointly with 34.605. *Prerequisite:* permission of instructor.

34.406 JEWISH HISTORY: MEDIEVAL PERIOD (c 01.00) Social and legal structure of medieval Jewish communities of Europe from 760 to 1800. Political and economic conditions in which Jewish communities existed and functioned are studied on basis of original sources (in translation). Economic role of Jews and history of anti-Semitism will be primary focus. Meets jointly with 34.606. *Prerequisite:* permission of instructor.

34.409 SPECIAL STUDIES IN JEWISH POLITICS AND LAW (c 01.00) Topics offered on rotating basis, including: historical development of Jewish political thought, comparative Jewish law, modern Israeli law, Jewish law in Christian society, and Jewish factor in contemporary politics. *Prerequisite:* permission of instructor.

34.481 SENIOR SEMINAR IN JEWISH STUDIES (c 01.00) Preparation of major research paper in student's selected area, presented to seminar for criticism. *Prerequisite:* Jewish Studies majors with senior standing only.

34.490 INDEPENDENT STUDY PROJECT IN JEWISH STUDIES (c 00.25 through 02.00)*

34.491 INTERNSHIP IN JEWISH STUDIES (c 00.25 through 02.00) Students gain on-the-job experience in such areas as Jewish communal work, education, media, domestic and international politics, and librarianship. *Prerequisite:* permission of Jewish Studies Program Director.

Graduate and Advanced Undergraduate Courses

34.590 INDEPENDENT READING COURSE IN JEWISH STUDIES (s 01.00 through 06.00)*

Graduate Courses

34.605 JEWISH HISTORY: TALMUDIC AND GEONIC PERIOD (s 03.00) Studies of Jewish communities

* See description under "General Curriculum Information" in this publication.

under Roman, Byzantine, Persian, and Muslim rule from 200 A.D. to thirteenth century, using primary sources (in translation) as basis for a major research paper. Meets jointly with 34.305.

34.606 JEWISH HISTORY: MEDIEVAL PERIOD (s 03.00) Study of Jewish communities in Europe from 760 to 1800, using primary sources (in translation) as basis for a major research paper, Meets jointly with 34.406.

34.690 INDEPENDENT STUDY PROJECT IN JEWISH STUDIES (s 01.00 through 06.00)*

Language and Foreign Studies

CHAIRMAN Bruno F. Steinbruckner

FULL-TIME FACULTY

Professor J. Frank (Emeritus), V. Medish, H. Mueller (Emeritus), R. Olds (Emeritus), B. F. Steinbruckner

Associate Professor M. Betts, V. Z. Borkovec, E. I. Burkart, M. A. Charbonneaux, J. W. Goldin, G. S. Mancill, H. Noel (Emeritus), H. Pineda, M. Struelens, K. Wyatt (Emeritus), Z. Wythe (Emeritus)

Assistant Professor G. A. Huberman, E. K. Oktay, O. Salazar

Instructor H. A. Shepanek, J. Wisman

FIELDS OF STUDY Concentrations: French studies, German studies, Russian studies, Spanish and Latin American studies, linguistics; joint area and language programs with the School of International Service, including Latin America, East Asia, South and Southeast Asia, and U.S.S.R.; joint program with the Department of Communication.

Undergraduate Degree Programs

Bachelor of Arts

MAJORS IN FRENCH STUDIES, GERMAN STUDIES, RUSSIAN STUDIES, SPANISH STUDIES

ADMISSION TO THE MAJOR Freshman and transfers are admitted to the department. They must maintain a B (3.00 on a 4.00 scale) grade point average in their major and related course work.

COMPOSITION AND READING REQUIREMENT See "Undergraduate Degree Requirements" in this publication.

DEPARTMENTAL REQUIREMENTS Completion of the elementary and intermediate language levels. Requirements of elementary and intermediate language course work may be waived if high school or other preparation warrants it.

MAJOR CONCENTRATION Ten courses are as follows: (1) Conversation and Composition I, II, III, IV (if warranted by language proficiency, a portion or all may be replaced with xx.500 level literature courses); (2) Civilization I and II; (3) at least one Introduction to Culture course; (4) an introductory linguistic course, topic or colloquium or literature; (5) Practicum (student teaching, internships, field work, community projects).

RELATED FIELD Six courses in one of the following fields: (1) area studies at the xx.300 level or above, including colloquia and literature; (2) a second foreign language; (3) teacher training. At least three of these courses must be in the Department of Language and Foreign Studies.

DEPARTMENTAL EXAMINATION A comprehensive examination during the last semester.

ELECTIVES To complete a minimum of thirty-two course units.

MAJOR IN LANGUAGE AND AREA STUDIES

This degree program is administered jointly with the School of International Service, College of Public Affairs. It is the only undergraduate program offered by the University which permits both an area of specialization and requires intensive training in the language of the area.

* See description under "General Curriculum Information" in this publication.

Freshman and transfers are admitted to the Department of Language and Foreign Studies or the School of International Service. They must achieve a B (3.00 on a 4.00 scale) or better cumulative average and determine their language and area before they are formally recognized as majors.

PROGRAMS OF STUDY The student must choose one of three different programs of study, depending on his language and area interest: (1) Russian—U.S.S.R.; (2) Spanish—Latin America; (3) French or German—Western Europe.

PREREQUISITES Elementary or intermediate language of the area, or the equivalent.

REQUIRED COURSES (1) Three courses in Conversation and Composition I and II (of an appropriate language) or approved substitutes. (2) Two courses in Civilization I and II (in the appropriate language). (3) Eight additional courses specific to the area of specialization, to be selected by the student in consultation with his advisor from among those offered in anthropology, economics, history, international relations, political science, literature, and interdisciplinary courses and colloquia. The eight must be distributed among two or more of these fields or disciplines, and may not include required prerequisites which are not specific to the area. At least four courses must be fulfilled in the Department of Language and Foreign Studies. (4) A total of four courses must be taken in the School of International Service, of which a minimum of two must be in an area of specialization (they may be among the eight courses required in (3)).

ELECTIVES To complete a minimum of thirty-two course units.

Combined Undergraduate-Graduate Degree Program

Bachelor of Arts, Master of Arts

MAJOR IN FOREIGN LANGUAGE AND COMMUNICATION MEDIA

Offered jointly with the Department of Language and Foreign Studies. This three year program combines junior and senior years culminating in a B.A. degree, and a graduate year leading to an M.A. degree. Admission to the undergraduate portion of the program does not guarantee admission to the graduate degree status. The latter is a separate step subject to graduate admission requirements.

ADMISSION TO THE MAJOR Undergraduate students are admitted directly to either the Department of Communication or the Department of Language and Foreign Studies. To be recognized formally as joint majors working toward the M.A., they must achieve senior standing and be accepted by *both* departments for the graduate degree portion of the program.

LANGUAGE REQUIREMENT Before the student can take any of the required courses taught in the appropriate foreign language, he must have completed two college years of that language or its equivalent.

CHOICE OF LANGUAGES French, German, Russian, Spanish.

CHOICE OF MEDIA Broadcast Journalism, Print Journalism, Public Communication, Visual Media.

UNDERGRADUATE MAJOR REQUIREMENTS All students must take (1) 17.00 Introduction to Mass Media and 17.101 Writing for Mass Communication; (2) three Communication and Media Studies courses; (3) two of the following culture courses: 37.110 Introduction to French Culture, 37.120 Introduction to German Culture, 37.130 Introduction to Russian Culture, or 37.140 Introduction to Spanish and Latin American Culture; (4) one of the following: 37.199 International Vocabulary, 30.204 Language and Mind, or 37.300 Introduction to Language; (5) five courses in one of the four communication tracks: Broadcast Journalism, Print Journalism, Public Communication, or Visual Media; (6) five appropriate language courses in Conversation and Composition I and II, Civilization I and II, topics, or colloquia.

GRADUATE MAJOR REQUIREMENTS All students must take (1) 17.503 Mass Media and Society, a selected topics in communication or media studies, and 17.531 International Communication Systems; (2) four approved language colloquia and one Independent Study Project on foreign media (in English); (3) research in 17.760 Methodology of Communication Research, and 37.700 Visiting Scholar Seminar or a Thesis (six hours); (4) a xx.500 level internship in foreign communication (optional); (5) a xx.500 level elective.

WRITTEN COMPREHENSIVE EXAMINATION One comprehensive examination on the appropriate foreign culture and media (in foreign language) is required: 37.002 French Studies; 37.003 German Studies; 37.004 Russian Studies; 37.005 Spanish and Latin American Studies.

Graduate Degree Programs

Candidates for graduate degrees in all academic units must meet the requirements set forth in the University Minimum Standards for Graduate Studies. The requirements appearing below are those of this department and do not relieve degree candidates from compliance with the minimum standards.

Master of Arts

MAJORS IN FRENCH STUDIES, GERMAN STUDIES, RUSSIAN STUDIES,
SPANISH STUDIES

PREREQUISITE Proficiency in the appropriate language and literature demonstrated either by a bachelor's degree in that field of study or equivalent preparation.

DEGREE REQUIREMENTS Minimum of thirty hours of approved graduate work, including:

Course Work At least twenty-four hours in appropriate courses and colloquia. A better than B (3.00) average must be maintained within this group.

Research Options (1) Thesis option must include one xx.700 level seminar (three hours). The thesis may be expressed as three or six hours of credit. Oral defense of the thesis before an appointed committee. (2) Non-thesis option must normally include two xx.700 level seminars. With special permission, one seminar may be replaced by an individual research project.

QUALIFYING EXAMINATION An oral interview before an appointed committee to evaluate the student's preparedness for the written comprehensive examination. Conducted in the appropriate foreign language.

COMPREHENSIVE EXAMINATION A written examination in the field of core courses.

Fields for Written Comprehensive Examinations The comprehensive fields listed are based on core courses and additional courses as required plus additional reading lists: 37.002 French Studies; 37.003 German Studies; 37.004 Russian Studies; 37.005 Spanish Studies. Selected courses and seminars with emphasis on particular authors, movements, periods, or literary forms.

MAJOR IN LINGUISTICS

PREREQUISITE Bachelor's degree or equivalent. Proficiency in a modern language equivalent to at least three college years.

COURSE REQUIREMENTS Minimum of thirty hours of approved graduate work according to one of two programs.

Program A with Thesis Option (1) Core courses: at least fifteen hours in general linguistics; (2) six hours in Master's Thesis Seminar and an oral defense of the thesis; (3) at least one xx.700 level seminar; (4) no more than six hours of electives.

Program B with Non-Thesis Option (1) Core courses: at least fifteen hours in general linguistics; (2) six hours in one of the following concentrations—(a) applied linguistics, (b) formal linguistics, (c) teaching English as a foreign language; (3) at least two xx.700 level seminars (with special permission, one seminar may be replaced by an individual research project); (4) no more than three hours of electives.

LANGUAGE REQUIREMENT Proficiency in a modern foreign language must be demonstrated in one of the following ways: (1) successful completion of a xx.500-xx.700 level course conducted entirely, or in part, in a foreign language; (2) successful completion of an individual research project dealing with a linguistic aspect of an approved language; (3) at least one semester of a teaching fellowship in a foreign language. Credit thus earned is applicable toward the student's course requirements. Waiver of the foreign language requirement may be granted to (1) foreign students, and (2) possessors of a bachelor's or its equivalent in a foreign language.

OTHER REQUIREMENTS A better than B (3.00) average must be maintained in the fifteen hours of core courses. No more than three hours of electives may be taken in disciplines other than those offered by the Department of Language and Foreign Studies.

QUALIFYING EXAMINATION An oral interview before an appointed committee to evaluate the student's preparedness for the written comprehensive examination.

COMPREHENSIVE EXAMINATION A written comprehensive examination in the field of 37.001 General Linguistics, based on courses 37.500 Principles of Linguistics I, 37.501 Principles of Linguistics II, 37.502 Linguistic Structure I: Phonetics and Phonemics, 37.503 Linguistic Structure II: Morphology of Syntax, 37.505 History of Linguistics, and additional courses as required, plus additional reading lists.

Courses of Instruction

Undergraduate Courses

The basic undergraduate level courses offered by the department through its Language Institute are listed alphabetically by field of study below.

Courses in the following languages are offered each academic year: French, German, Hebrew, Japanese, Russian, and Spanish.

Courses in the following languages are offered on a rotating basis or by tutorial: Arabic, Chinese, Czech, Danish, Dutch, Greek (Modern), Hindi, Hungarian, Indonesian, Italian, Korean, Latvian, Norwegian, Polish, Portuguese, Serbo-Croatian, Swedish, Thai, Vietnamese, Yiddish.

DESCRIPTION OF THE LANGUAGE PROGRAM

FIRST YEAR XX.100 INTENSIVE ELEMENTARY COURSES Emphasis on mastering structure. Basics of phonology and morphology. Situational approach. Perfection of audiolingual skills. Development of good pronunciation and speech patterns through intensive drilling. Mastery of writing system and its orthographic devices through controlled vocabulary and reading. Memorization techniques developed with audio-visual aids. Five clock hours per week of class instruction supplemented with compulsory group drilling sessions and individual language and laboratory work.

FIRST YEAR XX.100 MULTI-MEDIA ELEMENTARY COURSES Emphasis on audio-lingual skills, pronunciation, fluency in common speech situations. Intensive presentation of grammar. Basic vocabulary. Reading and writing as auxiliary skills. Five clock hours per week of class instruction plus individual language laboratory work.

Time compressed courses for telescoping two semesters into one by utilizing multi-media instruction. Systematic use of television. Available in Spanish.

SECOND YEAR XX.200 LEVEL INTENSIVE INTERMEDIATE COURSES Emphasis on cultural patterns and contrasts between cultures. Refinement of basic language skills. Study of more complex grammatical structures. Introduction of syntax. Expansion of vocabulary within cultural context. Intensive and extensive reading. Controlled writing projects. Transition from manipulation of patterns to development of communicative skills. Appropriate use of audio-visuals. Five clock hours per week of class instruction supplemented with compulsory intensive drilling and individual language laboratory work.

SECOND YEAR XX.200 MULTI-MEDIA INTERMEDIATE COURSES Available only in Spanish. Development of audio-lingual skills, reading, and writing. Text material focused on cultural patterns. Five clock hours per week of class instruction plus individual language laboratory work. Time compressed courses telescoping two semesters into one by utilizing multi-media instruction. Systematic use of television.

THIRD YEAR XX.300 LEVEL TOPICS COURSES Content lecture course on a selected topic. Taught in foreign language. Designed for both majors and non-majors. May be taken more than once for credit provided different subject matters are covered. Completion of a specified number of "topics" earns the student a special Use of Language Certificate.

THIRD YEAR XX.300 LEVEL INTENSIVE CONVERSATION AND COMPOSITION COURSES Emphasis on style and style level. Expansion of vocabulary through extensive reading of literary excerpts, current newspapers, magazines, assisted by a frequent use of audio-visual aids. Perfection of oral skills. Review of difficult grammar structures. Imitation of literary styles. Creative use of language. Study of semantic problems, idioms, clichés, and figurative speech. Five clock hours per week of class instruction.

FOURTH YEAR XX.400 LEVEL CIVILIZATION COURSES Survey of a foreign civilization. Emphasis on the historical development of literature. Topical lectures. Designed for both majors and non-majors.

FOURTH YEAR XX.400 LEVEL CONVERSATION AND COMPOSITION COURSES Perfection of audio-lingual and reading-writing skills. Progression from controlled conversation and composition to free speech and writing. Problems of style. Creative use of language. Designed especially for majors. Study of semantic problems, idioms, clichés, and figurative speech. Five clock hours of class instruction per week.

NOTE: In all language courses, students are expected to do individual language laboratory work outside class. Beginning with Elementary II, successful completion of the preceding level is prerequisite, unless otherwise specified.

ARABIC STUDIES

36.110 ARABIC, ELEMENTARY I (c 01.00)

36.111 ARABIC, ELEMENTARY II (c 01.00)

36.210 ARABIC, INTERMEDIATE I (c 01.00)

36.211 ARABIC, INTERMEDIATE II (c 01.00)

CHINESE STUDIES

36.112 CHINESE, ELEMENTARY I (c 01.00)

36.113 CHINESE, ELEMENTARY II (c 01.00)

CZECH STUDIES

36.114 CZECH, ELEMENTARY I (c 01.00)

36.115 CZECH, ELEMENTARY II (c 01.00)

FRENCH STUDIES

36.122 FRENCH, INTENSIVE ELEMENTARY I (c 01.50)

36.123 FRENCH, INTENSIVE ELEMENTARY II (c 01.50)

36.222 FRENCH, INTENSIVE INTERMEDIATE I (c 01.50)

36.223 FRENCH, INTENSIVE INTERMEDIATE II (c 01.50)

37.320 FRENCH TOPICS (c 01.00) Content courses taught in French on one of following topics: Survey of Arts, Political Life, Customs and Manners, The Younger Generation, Architecture, Leisure and Entertainment, Provinces, The Woman, Rulers and Statesmen, Paris, Its Places and Inhabitants, France Today and Tomorrow. *Prerequisite:* Two years of college French or equivalent.

37.324 FRENCH CONVERSATION AND COMPOSITION I (c 01.50) *Prerequisite:* two years of college French or equivalent.

37.325 FRENCH CONVERSATION AND COMPOSITION II (c 01.50)

37.380 FRENCH VOCABULARY ENRICHMENT (c 00.50) Supervised independent study. *Prerequisite:* two years of college French or equivalent.

37.420 FRENCH CIVILIZATION I (c 01.00) *Prerequisite:* three years college French or equivalent.

37.421 FRENCH CIVILIZATION II (c 01.00) *Prerequisite:* three years of college French or equivalent.

37.424 FRENCH CONVERSATION AND COMPOSITION III (c 01.50) *Prerequisite:* three years college French or equivalent.

37.425 FRENCH CONVERSATION AND COMPOSITION IV (c 01.50)

37.491 FRENCH PRACTICUM: INTERNSHIP (c 01.00) Supervised work-study program. *Prerequisite:* three years of college French or equivalent.

FOREIGN CULTURE (IN ENGLISH)

37.110 INTRODUCTION TO FRENCH CULTURE (c 01.00) No language prerequisite; especially for interested freshmen.

37.120 INTRODUCTION TO GERMAN CULTURE (c 01.00) No language prerequisite; especially for interested freshmen.

37.130 INTRODUCTION TO RUSSIAN CULTURE (c 01.00) No language prerequisite; especially for interested freshmen.

37.140 INTRODUCTION TO SPANISH AND LATIN AMERICAN CULTURE (c 01.00) No language prerequisite; especially for interested freshmen.

GERMAN STUDIES

36.124 GERMAN, INTENSIVE ELEMENTARY I (c 01.50)

36.125 GERMAN, INTENSIVE ELEMENTARY II (c 01.50)

36.224 GERMAN, INTENSIVE INTERMEDIATE I (c 01.50)

36.225 GERMAN, INTENSIVE INTERMEDIATE II (c 01.50)

37.330 GERMAN TOPICS (c 01.00) Content course taught in German on following topics: Customs and Manners, Lands and Regions, East and West, Survey of Arts. *Prerequisite:* Two years of college German or the equivalent.

37.334 GERMAN CONVERSATION AND COMPOSITION I (c 01.50) *Prerequisite:* two years of college German or equivalent.

37.335 GERMAN CONVERSATION AND COMPOSITION II (c 01.50)

37.380 GERMAN VOCABULARY ENRICHMENT (c 00.50) Supervised independent study. *Prerequisite:* two years of college German or equivalent.

37.430 GERMAN CIVILIZATION I (c 01.00) *Prerequisite:* three years college German or equivalent.

37.431 GERMAN CIVILIZATION II (c 01.00) *Prerequisite:* three years college German or equivalent.

37.434 GERMAN CONVERSATION AND COMPOSITION III (c 01.50) *Prerequisite:* three years college German or equivalent.

37.435 GERMAN CONVERSATION AND COMPOSITION IV (c 01.50)

GREEK STUDIES

36.126 GREEK, ELEMENTARY I (c 01.00)

36.127 GREEK, ELEMENTARY II (c 01.00)

HEBREW STUDIES

36.128 HEBREW, ELEMENTARY MODERN I (c 01.00)

36.129 HEBREW, ELEMENTARY MODERN II (c 01.00)

36.228 HEBREW, INTERMEDIATE MODERN I (c 01.00)

36.229 HEBREW, INTERMEDIATE MODERN II (c 01.00)

37.328 HEBREW AND ARAMAIC TEXTS (c 01.00)

HINDI STUDIES

36.130 HINDI, ELEMENTARY I (c 01.00)

36.131 HINDI, ELEMENTARY II (c 01.00)

HUNGARIAN STUDIES

36.132 HUNGARIAN, ELEMENTARY I (c 01.00)

36.133 HUNGARIAN, ELEMENTARY II (c 01.00)

36.396 SELECTED TOPICS: HUNGARIAN CIVILIZATION I (c 01.00)

INDONESIAN STUDIES

36.134 INDONESIAN, ELEMENTARY I (c 01.00)

36.135 INDONESIAN, ELEMENTARY II (c 01.00)

JAPANESE STUDIES

- 36.136** JAPANESE, ELEMENTARY I (c 01.00)
- 36.137** JAPANESE, ELEMENTARY II (c 01.00)
- 36.236** JAPANESE, INTERMEDIATE I (c 01.00)
- 36.237** JAPANESE, INTERMEDIATE II (c 01.00)
- 37.336** JAPANESE CONVERSATION AND COMPOSITION I (c 01.00)
- 37.337** JAPANESE CONVERSATION AND COMPOSITION II (c 01.00)

LATVIAN STUDIES

- 36.138** LATVIAN, ELEMENTARY I (c 01.00)
- 36.139** LATVIAN, ELEMENTARY II (c 01.00)

LINGUISTICS (IN ENGLISH)

- 37.198** LANGUAGE AND ETHNICITY (c 01.00)
- 37.199** INTERNATIONAL VOCABULARY (c 01.00) Designed especially for students interested—avocationally and vocationally—in phenomenon of international vocabulary. Pronunciation, transliteration, and contextual meaning of foreign words. Foreign names and terms. *No* foreign language prerequisite.
- 37.300** LANGUAGE, INTRODUCTION TO (c 01.00) Nature of language. Field of linguistics. Languages of the world. Linguistic terminology. Relation of linguistics to other disciplines. *No* foreign language prerequisite.

POLISH STUDIES

- 36.140** POLISH, ELEMENTARY I (c 01.00)
- 36.141** POLISH, ELEMENTARY II (c 01.00)
- 36.240** POLISH, INTERMEDIATE I (c 01.00)
- 36.241** POLISH, INTERMEDIATE II (c 01.00)

RUSSIAN STUDIES

- 36.142** RUSSIAN, INTENSIVE ELEMENTARY I (c 01.50)
- 36.143** RUSSIAN, INTENSIVE ELEMENTARY II (c 01.50)
- 36.242** RUSSIAN, INTENSIVE INTERMEDIATE I (c 01.50)
- 36.243** RUSSIAN, INTENSIVE INTERMEDIATE II (c 01.50)
- 37.340** RUSSIAN TOPICS (c 01.00) Content courses taught in Russian on the following topics: Map of the U.S.S.R., Political System, The Press. *Prerequisite:* Two years of college Russian or the equivalent.
- 37.344** RUSSIAN CONVERSATION AND COMPOSITION I (c 01.50) *Prerequisite:* two years of college Russian or equivalent.
- 37.345** RUSSIAN CONVERSATION AND COMPOSITION II (c 01.50)
- 37.380** RUSSIAN VOCABULARY ENRICHMENT (c 00.50) Supervised independent study. *Prerequisite:* two years of college Russian or equivalent.
- 37.440** RUSSIAN CIVILIZATION I (c 01.00) *Prerequisite:* three years college Russian or equivalent.
- 37.441** RUSSIAN CIVILIZATION II (c 01.00) *Prerequisite:* three years college Russian or equivalent.
- 37.444** RUSSIAN CONVERSATION AND COMPOSITION III (c 01.50) *Prerequisite:* three years college Russian or equivalent.
- 37.445** RUSSIAN CONVERSATION AND COMPOSITION IV (c 01.50)
- 37.491** RUSSIAN PRACTICUM: INTERNSHIP (c 01.00) Supervised work-study program. *Prerequisite:* three years of college Russian or equivalent.

SPANISH STUDIES

36.152 SPANISH, ELEMENTARY I & II (c 01.50) Time-compressed multi-channel instruction.

36.252 SPANISH, INTERMEDIATE I & II (c 01.50) Time-compressed multi-channel instruction.

37.350 SPANISH TOPICS (c 01.00) Content course taught in Spanish on the following topics: Regions of Spain, Social Scene in Latin America, Customs and Manners (Spain), regionalism (Latin America), Survey of Latin American Arts, Mexico's Culture. *Prerequisite:* two years of college Spanish or the equivalent.

37.354 SPANISH CONVERSATION AND COMPOSITION I AND II (c 01.50) *Prerequisite:* two years of college Spanish or equivalent.

37.380 SPANISH VOCABULARY ENRICHMENT (c 00.50) Supervised independent study. *Prerequisite:* two years of college Spanish or equivalent.

37.450 SPANISH (HISPANIC) CIVILIZATION I (c 01.00) *Prerequisite:* three years college Spanish or equivalent.

37.451 SPANISH (HISPANIC) CIVILIZATION II (c 01.00) *Prerequisite:* three years college Spanish or equivalent.

37.454 SPANISH CONVERSATION AND COMPOSITION III AND IV (c 01.50) *Prerequisite:* three years of college Spanish or equivalent.

37.491 SPANISH PRACTICUM: PROYECTO AMISTAD (c 01.00) A community-oriented work-study program offering a wide variety of experiences in teaching, social services, etc. *Prerequisite:* permission of the instructor.

THAI STUDIES

36.194 THAI, ELEMENTARY I (c 01.00)

36.195 THAI, ELEMENTARY II (c 01.00)

INDEPENDENT STUDY

37.390 INDEPENDENT READING COURSE IN LANGUAGES, FOREIGN STUDIES AND LINGUISTICS (c 00.25 through 02.00)*

37.490 INDEPENDENT STUDY PROJECT IN LANGUAGES, FOREIGN STUDIES, AND LINGUISTICS (c 00.25 through 02.00)*

Graduate and Advanced Undergraduate Courses

LINGUISTICS (IN ENGLISH)

37.500 PRINCIPLES OF LINGUISTICS I (s 03.00) Introduction to scientific study of language, with emphasis on structural linguistics.

37.501 PRINCIPLES OF LINGUISTICS II (s 03.00) Introduction to study of language change, classification of languages, and linguistic reconstruction. Readings, problems, and class discussions.

37.502 LINGUISTIC STRUCTURE I; PHONETICS AND PHONEMICS (s 03.00) Phonetics and phonemics. Techniques of describing speech sounds in terms of articulatory movements and formulas. Practice in hearing and transcribing phonetic sounds, using tape recordings. Basic premises underlying phonemic analysis and practical procedures for arriving at phonemes of a language. *Prerequisite:* 37.500, which may be taken concurrently.

37.503 LINGUISTIC STRUCTURE II: MORPHOLOGY AND SYNTAX (s 03.00) Problems in analysis and description of morphological data. Introduction to transformational generative grammar. *Prerequisite:* 37.502.

37.504 STRUCTURE OF MODERN AMERICAN ENGLISH (s 03.00) Systematic examination of English phonology and grammar as well as regional and social aspects of American English. *Prerequisite:* permission of the department.

37.505 HISTORY OF LINGUISTICS (s 03.00) Linguistic theories from the Greeks to modern times. Great linguists and their schools of thought. Development of American linguistics.

* See description under "General Curriculum Information" in this publication.

37.507 APPLIED LINGUISTICS: METHODOLOGY OF FOREIGN LANGUAGE (s 03.00) Comparison of various methods of language teaching. Principles underlying structural method of language teaching. Application of linguistics in preparation of teaching materials. Audio-visual aids.

37.508 TEACHING ENGLISH AS A FOREIGN LANGUAGE TRAINING (s 03.00) Methods of teaching English as foreign language: development of teaching materials; discussion of textbooks, lesson planning, problems of foreign student. Portion devoted to practical work; writing materials and presenting them orally for class critique.

37.509 THEORY AND CONSTRUCTION OF GRAMMARS (s 03.00) Emphasis is on construction of grammars as defining devices to characterize languages. Automata equivalent to various types of grammars are considered, as well as mathematical relations among grammars. Types of languages considered are mathematical, logical, computational and two-dimensional, in addition to natural language. *Prerequisite:* 37.503 which may be taken concurrently.

37.510 WORKSHOP IN FOREIGN LANGUAGE TEACHING (s 01.00 through 03.00) Workshop dealing with practical problems of foreign language teaching. Designed especially for prospective language teachers and teaching assistants.

FRENCH STUDIES (IN FRENCH)

37.520 FRENCH STRUCTURE (s 03.00) Contemporary and historical analysis of phonology, morphology and syntax of French.

37.521 HISTORY OF THE FRENCH LANGUAGE (s 03.00) Study of French language through various stages of its development.

37.522 FRENCH STYLISTICS (s 03.00) Word choice and word grouping. Figurative speech. Rhetorical figures. Grammatical elements of style. Style levels.

37.523 FRENCH ROMANTICISM (s 03.00) Development of the Romantic movement in early nineteenth century French literature. Analysis of sentiments of romanticists.

37.524 FRENCH REALISM (s 03.00) Nineteenth century French literature from decline of romanticism to turn of century. Periods of expression known as realism, naturalism, and symbolism.

37.525 CONTEMPORARY FRENCH LITERATURE (s 03.00) Course content changes each semester; emphasis on genre, movement or major writers. Course may be taken for credit more than once.

37.526 THE FRENCH RENAISSANCE (s 03.00) Renaissance and humanistic movement in France in sixteenth century. Rabelais, *Plejade*, Ronsard, Montaigne.

37.527 EIGHTEENTH CENTURY FRANCE; MEN AND IDEAS (s 03.00) Attitudes and ideas of age of enlightenment as reflected in Montesquieu, Diderot, Encyclopedists. Voltaire and Rousseau.

75.523 COLLOQUIUM ON FRANCE (s 03.00) Lectures, reports and critical discussions on selected topics pertaining to France's current role in international politics; cultural trends; economic problems. In French. Course may be taken for credit more than once. *Prerequisite:* three years college French or equivalent.

GERMAN STUDIES (IN GERMAN)

37.530 GERMAN STRUCTURE AND PROBLEMS IN TEACHING GERMAN (s 03.00) Problems in a descriptive analysis of German structure, and impact of new linguistic findings on practice of teaching German.

37.531 HISTORY OF THE GERMAN LANGUAGE (s 03.00) Historic development of German language. Scholarly methods applied in diachronic linguistics.

37.532 GERMAN STYLISTICS (s 03.00) Style in general and German style features in particular. To familiarize student in theory with what constitutes style levels in non-artistic usage and also to make him recognize elements of style in literary works of art.

37.533 TOPICS, MOTIFS AND CONVENTION IN GERMAN LITERATURE (s 03.00) Understanding and application of modern theoretical aspects reflecting present day thinking in German literary criticism.

37.535 GERMAN LITERATURE IN THE MIDDLE AGES (s 03.00) Medieval literature in Germany from approximately 900 to 1400 A.D. Covers period vital to the understanding of German intellectual development.

37.536 GERMAN LITERATURE OF THE 17TH AND 18TH CENTURY (s 03.00) Content alternates between (a) Barock period, and (b) Lessing and his time. Course may be taken for credit twice.

37.537 CLASSICAL PERIOD IN GERMAN LITERATURE (s 03.00) Content alternates between (a) Goethe and his time, and (b) Schiller and his time. Course may be taken for credit twice.

37.538 NINETEENTH CENTURY GERMAN LITERATURE (s 03.00) From romanticism to realism and subsequent developments to beginning of World War I. Selected representatives such as Heine, Keller, Storm, Stifter, Fontane, the naturalists.

37.539 CONTEMPORARY GERMAN LITERATURE (s 03.00) Content changes each semester; emphasis on (a) novel, or (b) drama, or (c) poetry. Course may be taken for credit more than once.

75.533 COLLOQUIUM ON GERMANY (s 03.00) Lectures, reports and critical discussions on selected topics pertaining to Germany's current role in international politics; cultural trends; economic problems. In German. Course may be taken for credit more than once. *Prerequisite:* three years college German or equivalent.

RUSSIAN STUDIES (IN RUSSIAN)

37.540 RUSSIAN STRUCTURE (s 03.00) Contemporary and historical analysis of phonology, morphology, and syntax of Russian.

37.541 HISTORY OF THE RUSSIAN LANGUAGE (s 03.00) Russian language through various stages of its development.

37.542 RUSSIAN STYLISTICS (s 03.00) Word choice and word groupings. Figurative speech. Rhetorical figures. Grammatical elements of style. Style levels.

37.543 RUSSIAN CLASSICS (s 03.00) Content changes each semester; emphasis on life and works of major writers. Course may be taken for credit more than once.

37.544 SOVIET LITERATURE (s 03.00) Content changes each semester; emphasis on one major genre or period of Soviet literature. Course may be taken for credit more than once.

37.545 RUSSIAN DRAMA (s 03.00) Content changes each semester, emphasis on a major period or works of one outstanding Russian playwright. Course may be taken for credit more than once.

37.546 RUSSIAN POETRY (s 03.00) Content changes each semester, emphasis on a major period or works of one outstanding Russian poet. Course may be taken for credit more than once.

75.543 COLLOQUIUM ON SOVIET UNION (s 03.00) Lectures, reports and critical discussions on Soviet political system; Russia and USSR. Continuity and change. Communist semantics as propaganda means; cultural scene. In Russian. Course may be taken for credit more than once. *Prerequisite:* three years college Russian or equivalent.

SPANISH (LATIN AMERICAN) STUDIES (IN SPANISH)

37.550 SPANISH STRUCTURE (s 03.00) Contemporary and historical analysis of phonology, morphology, and syntax of Spanish. In English.

37.551 HISTORY OF THE SPANISH LANGUAGE (s 03.00) Spanish language through various stages of its development in Europe and America.

37.552 SPANISH STYLISTICS (s 03.00) Word choice and word groupings. Figurative speech. Rhetorical figures. Grammatical elements of style. Style levels.

37.553 SPANISH CLASSICS (s 03.00) Content changes each semester, emphasis on period of Spanish literature from medieval epic to generation of 1898. Course may be taken for credit more than once.

37.554 CLASSICS OF LATIN AMERICAN LITERATURE (s 03.00) Content changes each semester, emphasis on period of Spanish-American literature from colonial era to present time. Course may be taken for credit more than once.

37.555 SPANISH LITERATURE AFTER THE CIVIL WAR (s 03.00) Content changes each semester, emphasis on major contemporary writer. Course may be taken for credit more than once.

37.556 TWENTIETH CENTURY LATIN AMERICAN NOVEL (s 03.00) Content changes each semester; emphasis on major contemporary novelist. Course may be taken for credit more than once.

75.553 COLLOQUIUM ON LATIN AMERICA (s 03.00) Lectures, reports and critical discussions on peoples and governments of Latin America; cultural trends, political and economic problems; international relations. In Spanish. Course may be taken for credit more than once. *Prerequisite:* three years college Spanish or equivalent.

GENERAL STUDIES

37.519 VISITING SCHOLAR'S SEMINAR (s 03.00) Seminar with flexible content pertaining to one or more selected topics in foreign literatures, cultures, and linguistics. May be taken for credit more than once.

37.590 INDEPENDENT READING COURSES IN LANGUAGE OR LINGUISTICS (s 01.00 through 06.00)*

Graduate Courses

LINGUISTICS (IN ENGLISH)

37.600 LINGUISTIC STRUCTURE III: THEORIES OF SYNTAX (s 03.00) Introduction to and comparison of various models on syntactic analysis. *Prerequisite:* 37.503.

37.605 SEMANTICS (s 03.00) History of semantic theory. Semantic changes, reflecting cultural change. Ambiguity of meaning. Metaphors. Synonymy. Etymologies. World-field theory. Structural semantics versus historical semantics.

37.710 SEMINAR IN LINGUISTICS (s 03.00) Reports and critical discussion on various theoretical and practical problems in scientific study of language, methodology in linguistic research, and other pertinent linguistic subjects. Different content Fall and Spring. Course may be taken for credit more than once.

FRENCH STUDIES (IN FRENCH)

37.702 SEMINAR IN FRENCH STUDIES (s 03.00) Reports and critical discussion of research papers on French literature. Course may be taken for credit more than once.

GERMAN STUDIES (IN GERMAN)

37.703 SEMINAR IN GERMAN STUDIES (s 03.00) Reports and critical discussion of research papers on German literature. Course may be taken for credit more than once.

RUSSIAN STUDIES (IN RUSSIAN)

37.704 SEMINAR IN RUSSIAN STUDIES (s 03.00) Reports and critical discussion of research papers on Russian literature. Course may be taken for credit more than once.

SPANISH STUDIES (IN SPANISH)

37.705 SEMINAR IN SPANISH AND LATIN-AMERICAN STUDIES (s 03.00) Reports and critical discussion of research papers on Spanish and Latin-American literature. Course may be taken for credit more than once.

GENERAL STUDIES

37.690 INDEPENDENT STUDY PROJECT IN LANGUAGE OR LINGUISTICS (s 01.00 through 06.00)*

37.797 MASTER'S THESIS SEMINAR (s 01.00 through 06.00)

Liberal Studies

DEAN Richard Berendzen (College of Arts and Sciences)

LIBERAL STUDIES COMMITTEE The Liberal Studies Program is administered by the Dean of the College of Arts and Sciences with the advice of the Liberal Studies Committee. Faculty members on the committee are: T. DiBacco (history), H. Leidecker (physics), P. Nash (anthropology), M. Norton (chemistry), R. Rubenstein (literature), J. Weaver (economics).

* A permanent part of the curriculum, but not offered every year.

FIELDS OF STUDY Courses in the Liberal Studies Program are organized according to the three broad areas of human knowledge: arts and humanities, social sciences, and natural sciences.

REQUIREMENTS Undergraduates who first register as College of Arts and Sciences students for or after the Spring semester 1976, will be required to complete the following number and range of Liberal Studies courses as a requirement for the College of Arts and Sciences bachelor's degrees: (1) three Liberal Studies courses, one from each area, for students entering the College of Arts and Sciences with from zero to eight course units; (2) two Liberal Studies courses, one from each area other than the area of the student's major, for students entering the College of Arts and Sciences with from eight to sixteen course units; (3) one Liberal Studies course from an area other than the area of the student's major for students entering the College of Arts and Sciences with from sixteen to twenty-four course units; no Liberal Studies requirement for students entering the College of Arts and Sciences with twenty-four or more course units or with an Associate of Arts degree.

This requirement does not apply to students majoring in Elementary and Early Childhood Education since the elementary education program has its own extensive general education requirement.

Courses of Instruction

ARTS AND HUMANITIES

30.200 CONTEMPORARY AMERICAN LITERATURE: TOWARD A HUMAN UNIVERSITY (c 01.00) Investigation of thematic, formal and cultural implications of various strategies modern authors have evolved to heal their sense of alienation. From the shattered world of modernists Mailer and Hemingway to the isolation and despair of Plath and McGuane to the celebrations of Olson, Barth, and Pynchon. (Professor C. B. Chabot, Department of Literature)

30.201 D. H. LAWRENCE AND MODERN SOCIETY (c 01.00) Study of works of D. H. Lawrence as artist's "statement" to his society. His vision at beginning of this century of what were dangerous threats to the quality of human life can now be ascertained as nothing less than prophetic. Course will work to discover what Lawrence said and why we failed to hear him. (Professor T. Cannon, Department of Literature)

30.202 GREAT IDEAS THAT CHANGED HISTORY (c 01.00) Great philosophical ideas which have changed Western intellectual history and thereby have shaped our twentieth century thought. Primary attention given to Plato, St. Thomas Aquinas, Descartes, Hume, Kant, Hegel. (Professor H. Durfee, Department of Philosophy and Religion)

30.203 HISTORIANS AND THE LIVING PAST (c 01.00) Man's attempt to understand his past. How contemporary life is affected by views of the past. Use of history to justify current policy. Theories of historical explanation such as ancient mythology, Christian and Marxist determinism, psycho-history and quantitative history. Evaluation of historical evidence and historical methodology to understand conflicting information in complex society. (Professors V. Allen and A. Lichtman, Department of History)

30.204 LANGUAGE & MIND (c 01.00) Relationship between language and the mind. Theories of language origins and language acquisition. How language helps to think more clearly and effectively. Uses of language. Speech defects and their importance in self-concept of the individual. (Professor G. Huberman, Department of Language and Foreign Studies)

30.205 MUSIC, PERFORMANCE AND SOCIETY (c 01.00) Performance as projection of musical expression. Performance within its social context. Course attempts to generalize from performance in the narrow sense of a formal act on a stage to performance in general sense in which everyone performs some role or in some capacity in every day life. (Professor A. Mandel, Department of Music)

30.206 THE 1920s AND AFTER: WERE THEY REALLY THE GOOD OLD DAYS? (c 01.00) Role of 1920s in development of twentieth century American culture. Events and trends in the period: mass media, automobiles, novels, film, theater, twenties as a post-war decade. Emphasis on the effect of change upon lives of ordinary Americans and how changes of the twenties have developed and influenced succeeding decades, including our own. (Professor K. Mussell, American Studies Program)

30.207 PERFORMANCE AND THE WHOLE PERSON (c 01.00) Performance as act which involves and reveals the whole person. Investigation of several non-traditional performance and performance

training systems which are psychophysically oriented. Structured around lectures, seminar discussions, and participatory workshops. No previous experience in performance is necessary. (Professor J. Hindman, Department of Performing Arts)

30.208 TRADITIONAL AFRICAN THOUGHT (c 01.00) Course has three aims: (1) to understand the traditional African experience in areas of life values, approach to natural phenomena, explanation of life events, and cultural art forms; (2) to compare this African experience with "Western" outlook; (3) to face problem of evaluation of cultural standards. (Professor T. Rosche, Department of Philosophy and Religion)

30.400 THE DISINHERITED MIND: MODERN RELIGION AND SECULARIZATION (c 01.00) Effects of processes of secularization on human consciousness in nineteenth and twentieth centuries. Concept of the "disinherited mind" will be explored in terms of "crisis of meaning," "fragmentation of identity," "nihilism," and "anomie." Expressions of this consciousness in philosophy, theology, art and literature will be examined. (Professor C. Hardwick, Department of Philosophy and Religion)

SOCIAL SCIENCES

30.270 SEMINAR IN HUMAN COMMUNICATION (c 01.00) Available only through registration in First Year Module on Human Communication. The Module satisfies both Humanities and Social Science requirements in Liberal Studies. (Professors Leap, Department of Anthropology, Huberman, Department of Language and Foreign Studies, Rubenstein, Department of Literature, Scribner, Department of Philosophy and Religion, Baker, Department of Performing Arts)

30.271 FREEDOM AND POWER IN AMERICAN LIFE (c 01.00) Examination of freedom and power as sociological concept which measures amount of control that people retain over their own lives. Introduces sociological perspective by taking objective view of American institutions in terms of their actual structures and functioning unaccompanied by normally accepted ideology. (Professor K. Kusterer, Department of Sociology)

30.272 HUMANKIND IN SPACE AND TIME (c 01.00) Evolution of culture viewed from joint perspective of biology, psychology, and anthropology. Understanding human development from first use of tools to exploration of the solar system. Teaching-learning will be by lecture, film viewing, discussion and independent reading. (Professor P. Nash, Department of Anthropology)

30.274 THE COMPUTERIZED SOCIETY (c 01.00) Examination of joys and concerns of society's relationship with the computer. Emphasis on computer's impact on individuals. Look at future computer systems applications and their impact on many sectors of society. Field trips. No pre-requisites besides interest, concern and desire to participate actively. (Professor R. Bassler, Center for Technology and Administration)

30.275 UNDERSTANDING MEDIA (c 01.00) The media shapes our society. The media and society shape us. Course helps understand that process, by observing, discussing, and doing the media. Access to commercial media such as theatrical films, TV, radio, newspapers and magazines is required for class discussion and media projects. Concentration is placed on new electric media. (Professor R. Sutton, Department of Communication)

30.470 INDIVIDUALISM AND THE TECHNOLOGICAL SOCIETY (c 01.00) Social-political philosophy supplies the axis of informal seminar focused on characteristics, plight, and destiny of modern individualism as it is challenged because of technology's ever-widening triumphs. Transcendent questions of apt and timely personal values and of prospects of the human species are approached from different philosophical vantage points. (Professor E. Robinson, School of Government and Public Administration)

30.471 MODERN GOVERNMENT: PURPOSE, POWER AND CHANGE Comprehensive approach to contemporary political science with emphasis on theory, process and institutions of politics and government in the modern world. Course examines the nature and functions of political systems in society and principal ideological conflicts today. Readings deal with countries at varying stages of economic and political development. (Professor A. Perlmutter, School of Government and Public Administration)

NATURAL SCIENCES

30.240 ARMS CONTROL, POLITICS AND SCIENCE (c 01.00) Study of impact of nuclear age and strategic weapons on the survival of man. Historic view of military institutions in U.S.; study of fission, fusion, effects of radiation, ballistic missiles; negotiations leading to Limited Test Ban Treaty; the Arms Control Agreements; the ABM debate; and the Strategic Arms Limitation Talks. (Professor B. Chertok, Department of Physics)

30.241 HUMAN BIOLOGY (c 01.00) Concepts and principles of biology using the human organism as representative animal. Social and ecological problems in relationship to human body functions. Topics covered include drugs and behavior, abortion, environmental influences on the embryo and adult. (Professor B. Clarke, Department of Biology)

30.242 HUMAN HEREDITY (c 01.00) Science of genetics and its relevance to history of man. Topics may include evolution of man, his relationship to other animals, inherited characteristics, effect of genetic intervention on man's existence. Scope and areas of study are directed in part by students. (Professor R. Wrathall, Department of Biology)

30.243 SCIENCE AND HUMAN BEHAVIOR (c 01.00) Understanding behavioral control implicit in major human institutions. Principles of behavioral psychology applied to understanding the major agencies of culture. Text is *Science and Human Behavior* by B. F. Skinner, with additional readings from his critics' works. Instructional method is individualized. Course content is examined at students' own pace as each unit is completed. (Professor C. Ferster, Department of Psychology)

30.244 SEARCH FOR EXTRATERRESTRIAL LIFE (c 01.00) Course based on analysis of following fundamental questions: What is the nature of living things on earth? How did life begin on earth? What evidence do we have regarding existence of life elsewhere in our solar system? If there are other beings, is interstellar communication or space travel feasible? (Professor R. Berendzen, Department of Physics)

30.245 THE WORLD OF SOUND AND LIGHT (c 01.00) Explores mathematical and physical nature of sound and musical tones to understand structure of music from physical and aesthetic view. Explores nature of light and color from its physical principles to its subjective properties. Explores how man has used light and color as tools in art and communication. (Professor R. Segnan, Department of Physics)

30.246 SPACESHIP EARTH (c 01.00) Study of natural limits of life on Earth and effects human activities have on these limits. Cause, prediction, and control of natural catastrophes. Causes and possible amelioration of pollution. Availability of natural resources. How these factors may limit population and affect life styles. (Professor M. Norton, Department of Chemistry)

Literature

CHAIRMAN Frank Turaj

Director of Doctoral Studies Rudolph von Abele

Director of M.A. Studies Faye Kelly

Director of Undergraduate Studies, Teacher Education Advisor William E. Stahr

FULL-TIME FACULTY

Professor R. von Abele, M. Batchelder (Emeritus), C. M. Clark, P. Han, F. Kelly, E. L. Kessler, F. King (Emeritus), C. R. Larson, M. Patton (Emeritus), J. A. Roberts, F. Turaj, L. Young (Emeritus)

Associate Professor J. J. Jorgens, R. Rubenstein, H. S. Taylor, S. Yarnall

Assistant Professor A. P. Bean, L. Behrens, L. Blanchard, T. F. Cannon Jr., C. B. Chabot, J. R. Green, J. E. Lewin, K. W. Moyer, J. Radner, B. Reddick, W. E. Stahr, F. Zapatka

Visiting Professor A. Lustig

Undergraduate Degree Program

Bachelor of Arts

MAJOR IN LITERATURE

ADMISSION TO THE MAJOR Formal admission to the major requires a 2.00 average and approval of the department.

COMPOSITION AND READING REQUIREMENT See "Undergraduate Degree Requirements" in this publication.

LANGUAGE REQUIREMENT See opening section under "College of Arts and Sciences" in this publication.

DEPARTMENTAL REQUIREMENTS

Major Courses Major will be required to take 23.140 Critical Reading. Other requirements are currently under revision. They will be specified in the "Undergraduate Handbook" available in the office of the Department of Literature.

Related Courses The department has no "related fields" as such. Students are encouraged to develop an understanding of the subject matter and methods of at least two other University academic units and to relate literary study to other disciplines.

ELECTIVES To complete a minimum of thirty-two courses.

ELEMENTARY SCHOOL TEACHER TRAINING Students majoring in education and selecting literature as an area of concentration should consult the Department of Education about appropriate courses.

SECONDARY SCHOOL TEACHER TRAINING The Department of Literature, in cooperation with the Department of Education, offers a curriculum which will lead to certification for teaching English at the high school level. Students who have selected this as their vocational objective should see the teacher education advisor in the Literature Department.

FILM PROGRAM A program in film, conducted through the Office of Interdisciplinary Studies, is offered jointly by the Department of Literature and the Department of Communication. (See Professor Turaj, Department of Literature.)

Graduate Degrees

Candidates for graduate degrees in all academic units must meet the requirements set forth in the University Minimum Standards for Graduate Studies. The requirements appearing below are those of this department and do not relieve degree candidates from compliance with the minimum standards.

Master of Arts

MAJOR IN LITERATURE

ADMISSION In addition to the University's minimum requirements, the Literature Department normally requires that candidates for admission to the M.A. program have at least a 3.00 grade point average (on a 4.00 scale) in undergraduate literature courses. The Graduate Record Aptitude Examination is recommended, but not required; if the test *has* been taken, the results must be forwarded to the Office of Admissions, Financial Aid and Veterans Affairs, Programs and Services. An undergraduate major in literature is desirable, but applications from candidates who have majored in other fields will also be considered, provided that substantial study of literature has been done.

Students may apply to enter the M.A. program in literature in the Fall, Spring, or Summer academic terms. Part-time as well as full-time students are welcome in the program. Degree work should be completed within three years of entrance.

Admission to or completion of the M.A. program does not ensure admission to the Ph.D. program.

PROGRAM A student admitted to the Literature Department's M.A. program may opt for one of three different emphases within the program: (1) the Thesis Option, (2) the Non-Thesis Option, or (3) the M.A. with emphasis on creative writing. These are described briefly below.

COURSE REQUIREMENTS (1) At least two graduate seminars. (Students who entered the M.A. program prior to September, 1973, need take no more than one graduate seminar.) Normally these will be M.A. seminars (23.725 and 23.726). With the permission of the instructor, qualified M.A. students may be admitted to seminars offered in the Ph.D. program; in addition, graduate seminar credit will be given for participation in Folger Institute seminars.

(2) Eighteen additional hours (or twenty-one for students who entered the program prior to September, 1973) of graduate seminars, advanced literature courses (23.600, 23.610, 23.620, 23.630, 23.640, 23.650), independent reading courses or study projects, or independent study work coordinated with enrollment in "short courses" in the Ph.D. program. With the permission of his departmental advisor, up to six graduate credit hours may be taken outside the Literature Department, as an integral part of a student's program.

(3) Six additional hours as follows:

Thesis Option A student electing to write a Master's Thesis will undertake a two-semester project, involving independent research under faculty direction (three credit hours) and thesis-writing (three credit hours, Master's Thesis, 23.797).

Non-Thesis Option A student who chooses *not* to write a Master's Thesis must take six additional hours of course work of the kinds described in (2) above, and must also submit to the Director of M.A. Studies, for evaluation by the department faculty, a fifteen to twenty page critical essay involving both research and independent thought. (The essay may represent a careful revision of a paper prepared in the normal course of M.A. degree study.)

Emphasis on Creative Writing A student who has been admitted to this program will submit, in lieu of a critical thesis, a substantial piece of creative writing. Normally, therefore, the remaining six hours of this degree program will consist of a creative writing course (23.640) or independent project in the genre (fiction, poetry, drama, film script) of his thesis, and of three credit hours (23.797, Master's Thesis) spent writing the thesis. (*Note:* A student wishing to take this option must first be admitted to the department's general M.A. program; after six hours of graduate study of literature at The American University, a writing sample should be submitted to the department's Creative Writing Committee, which will determine whether a student may be admitted to the M.A. program with emphasis on creative writing.)

COMPREHENSIVE EXAMINATION Each degree candidate must pass one written comprehensive examination, which will normally be taken in the last semester of study in the program. The candidate, in close conference with his advisor, devises the question that he intends to answer. The question must be approved by the Graduate Studies Committee.

Doctor of Philosophy

MAJOR IN LITERARY STUDIES

The Program for a Ph.D. in Literary Studies at The American University has been designed to provide maximum freedom for students and faculty, and maximum opportunity for individual exploration with tutorial guidance. Specific requirements have been kept to a minimum, and enrollment is limited to ten new students a year.

Specific language requirements and the study of particular "related fields" are not prescribed. Each student, however, will pursue either a literature other than English, or another field pertinent to his literary exploration, such as political science, economics, anthropology or sociology. Students will choose a related field during their first year and will pursue it through courses or reading and research or both during the next two years.

The program is designed to emphasize the spirit of inquiry as well as the acquisition of knowledge. In place of the traditional dissertation a series of three special study projects will be developed and presented, one a year, over the three-year period.

ADMISSION Graduate Record Examination is recommended. At least two letters of recommendation are required. Whenever possible an interview should be arranged with the Director of Doctoral Studies.

GENERAL REQUIREMENTS An undergraduate degree, either with a major in literature or with substantial course work in literature.

Three years full-time residence at The American University, during which the student will complete:

Special Projects Three special study projects which must deal with each of the following aspects of literature: (1) major writer, (2) role of convention, and (3) interdisciplinary study.

In the Fall, the candidate proposes a project to be completed by the end of the Spring semester. The proposal is evaluated by the tutorial director and a special committee. The scope of the project is defined and readings appropriate to the project are assigned and suggested.

The completed project is again evaluated by the special committee with respect to its merits and the student's mastery of the subject area.

Seminar Requirements To total eighteen semester hours: (1) Theory of Literary Criticism; (2) Theory of Literary History; (3) Theory of Literary Form (two semesters); (4) Theory of Literary Ideas (two semesters). Courses on the nature of language and creative writing may be substituted for (3) or (4).

Tutorials To total thirty-six semester hours. Each student will be assigned a tutor with whom to plan reading, research, writing, and teaching. Students will have at least two different tutors in the three year period. Students will keep intellectual journals to maintain a record for tutors of their reading and thinking.

Teaching To total eighteen hours. The study and practice of teaching is an essential part of the program. Students will observe systematically during first year and teach during the last two years.

SHORT COURSES A series of short courses will be offered each year. Students may participate as they wish.

EVALUATION Written evaluations by the Graduate Committee will be given students twice each year. For the purpose of record keeping, at each stage of evaluation each student will be said to have failed to complete, completed, or completed-with-distinction half a year's work.

Courses of Instruction

Undergraduate Courses

ENGLISH FOR FOREIGN STUDENTS See course offerings under College of Continuing Education, English Language Institute.

BEGINNING LEVEL COURSES

23.100 COMPOSITION AND READING I (c 01.00) Training and practice in writing and critical reading. Concepts of language and rhetoric as basis for effective expression in English. Includes techniques of library research, organization and writing of documented research paper.

23.101 COMPOSITION AND READING II (c 01.00) Critical reading with related writing assignments. 23.100 or its equivalent recommended for background.

23.102, 23.103 COMPOSITION AND READING I AND II (c 01.00) (c 01.00) 23.102 and 23.103 are essentially the same as 23.100 and 23.101. Same amount of course unit credit awarded upon completion. They are designed, however, for students who need special help in learning to write. Students will attend workshop session each week where teacher provides extra instruction in specific areas in which individual students are having difficulty.

23.104 FRESHMAN SEMINARS IN LITERATURE AND OTHER DISCIPLINES (c 01.00) Alternative to Composition and Reading courses listed above. Students may wish to consider the seminar as a means of fulfilling the University Composition and Reading Requirement.

23.130 HONORS ENGLISH I (c 01.00) Limited to first-year students, by invitation.

23.131 HONORS ENGLISH II (c 01.00) Limited to first-year students, by invitation.

23.140 CRITICAL READING (c 01.00) Concentration on means by which literary artists contemplate and comprehend human experience, and on artistic techniques which shape and achieve form. Required of all literature majors.

BASIC UNDERGRADUATE COURSES

23.200 ADVANCED WRITING WORKSHOP (c 01.00) Writing seminar concentrating on expository prose. *Prerequisites:* 23.100 and 23.101 or equivalent.

23.201 INTRODUCTION TO CREATIVE WRITING (c 01.00) Creative writing for beginning students who want to write poetry, fiction, drama, reportage and autobiography with specific assignments in each category. (With departmental permission, course may be repeated for credit.) *Prerequisites:* 23.100 and 23.101 or equivalent.

23.202 INTRODUCTION TO THE CREATIVE PROCESS IN LITERATURE (c 01.00) Students become involved with three distinct varieties of literary experience—criticism, creative writing, and oral performance—in order to facilitate development of rich, integrated encounter between reader and literary work, and to develop understanding of processes involved in completion of such a work.

23.210 MAJOR AMERICAN WRITERS I: AN INTRODUCTORY SURVEY Study of American writers who exercised formative and continuing influence on American letters and intellectual life. Appraisal of their roles in the history of literature and thought and aesthetic evaluation of their works. Colonial, national, and romantic periods.

23.211 MAJOR AMERICAN WRITERS II: AN INTRODUCTORY SURVEY (c 01.00) Study of the American writers who exercised a formative and continuing influence on American letters and intellectual life. Appraisal of their roles in the history of literature and thought and aesthetic evaluation of their work. Realist, naturalist, modern and contemporary periods.

23.220 MAJOR BRITISH WRITERS I: AN INTRODUCTORY SURVEY (c 01.00) Study of principal writers of British tradition: Chaucer, Spenser, Shakespeare, Bacon, Donne, Milton, Dryden, Swift, Pope, Johnson, and Boswell. Each writer examined as representative voice of his age and as individual artist.

23.221 MAJOR BRITISH WRITERS II: AN INTRODUCTORY SURVEY (c 01.00) Study of principal writers in British tradition: Wordsworth, Coleridge, Byron, Shelley, Keats, Tennyson, Browning, Arnold, Shaw, Yeats, and Eliot. Each writer examined as representative voice of his age and as individual artist.

23.230 MAJOR EUROPEAN WRITERS: AN INTRODUCTORY SURVEY (c 01.00) Study of selected continental writers from Greeks to modern times. Method is chronological, with attention given to emergence and development of major literary forms.

23.260 INTRODUCTION TO FOLKLORE I (c 01.00) General survey of forms of international and American folklore, verbal and non-verbal: superstition, magic, proverbs, riddles, jokes, legends, folktales, folksongs, ballads, folk music, games, cures, calendar customs, folk religion, crafts, folk art. Some films and field trip assignments. Lecture and discussion. Meets jointly with 23.660.

23.261 INTRODUCTION TO FOLKLORE II (c 01.00) Study of major forms of international and American oral narrative: legends, ballads, folktales, and epics. May be taken independently of 23.260. Meets jointly with 23.661.

GENERAL UNDERGRADUATE COURSES

(No prerequisite for any course)

23.300 HISTORY OF THE ENGLISH LANGUAGE (c 01.00) Development of the language from Old English to Modern English, with special studies on phonology, morphology, semantics, and vocabulary. Meets jointly with 23.600.

Studies in Writers and Works

23.301 SHAKESPEARE I (c 01.00) Selected earlier plays. Meets jointly with 23.601.

23.301 SHAKESPEARE II (c 01.00) Selected later plays. Meets jointly with 23.601.

23.301 FITZGERALD AND HEMINGWAY (c 01.00) Study of fiction of Fitzgerald and Hemingway with emphasis upon common theme of loss in their work. Relationship between both and their place within literary period of the twenties and thirties also explored, though main emphasis on thematic analyses of specific works. Meets jointly with 23.601.

23.301 CHAUCER (c 01.00) Study of narrative art and moral vision of Chaucer's poetry. Directed readings in social, historical, and intellectual backgrounds. Introduction to study of medieval literature. Meets jointly with 23.601.

23.301 MILTON (c 01.00) Course focuses on Milton as thinker and poet. Selections from prose works read and analyzed as background for Milton's thought. Majority of semester devoted to close reading of the poems, studied with view toward tracing Milton's development of form and his methods of projecting his world view. Requirements include short analytical papers and tests. Meets jointly with 23.601.

23.301 DOSTOEVSKY (c 01.00) Selected fiction of Dostoevsky: intensive study of some major novels and some minor work. Meets jointly with 23.601.

23.301 TOLSTOY (c 01.00) Selected fiction of L. Tolstoy: study of his narrative artistry and of his philosophical contributions. Meets jointly with 23.601.

23.301 STUDIES IN THOMAS MANN (c 01.00) Intensive reading in selected major and minor works by Thomas Mann, with occasional collateral reading of books by other twentieth century German novelists. Meets jointly with 23.601.

23.301 GEORGE BERNARD SHAW (c 01.00) Complete Shaw—playwright, socialist, pamphleteer, revolutionist, creative evolutionist, and poet. All the plays will be read and as many political and social works as seem practicable. Parallel reading of biographical and critical material assigned. Meets jointly with 23.601.

23.301 THE DRAMA OF SAMUEL BECKETT (c 01.00) Examination of Beckett's development as dramatist, from *Waiting for Godot* through *Not I*. Readings include radio and TV plays as well as stage plays. Seminar format. Meets jointly with 23.601.

23.301 AN INTRODUCTION TO *Ulysses* (c 01.00) *Ulysses* intensively explored as a novel in which all crucial novelistic problems of the twentieth century converge: point-of-view, treatment of time, role of style, fragmented narrative, use of myth, intrusion of history into fiction, autobiographical esotericism, and problem of the reader vs. the novel, the novel vs. the reader. Seminar setting; discussion paramount. One take-home exam. For mature student, recommended: Richard Ellman, *James Joyce*; also, by JJ, *Dubliners*, *Stephen Hero*, *Portrait*. Meets jointly with 23.601.

23.301 AN INTRODUCTION TO *Finnegans Wake* (c 01.00) Course is setting-up of framework within which instructor and a group of students can make the attempt to learn how to approach the *Wake* most fruitfully. Intended to offer opportunity to acquire elements of methodology for reading this difficult and endlessly rewarding book. Especially recommended to students interested in notion of linguistic play. Meets jointly with 23.601.

Studies in Literary Forms and Literary Ideas

23.302 HISTORY OF LITERARY CRITICISM (c 01.00) Selected reading in literary criticism from Plato to T. S. Eliot. History of literary theory and of literary approaches. Meets jointly with 23.602.

23.302 MODERN CRITICISM (c 01.00) Survey of key works influencing contemporary trends in literary theory and criticism. Prior experience in college level literature courses strongly recommended. Meets jointly with 23.602.

23.302 DEVELOPMENT OF THE NOVEL (c 01.00) Theory of the novel. Study of the form of the novel from its beginnings down through Robbe-Grillet. Readings in selected novelists and critics of the novel. Meets jointly with 23.602.

23.302 ELEMENTS OF POETRY (c 01.00) Introduction to study of poetry as literary genre. Form, style, metrics, the creation of effect, critical method. Meets jointly with 23.602.

23.302 AUTOBIOGRAPHY AND BIOGRAPHY (c 01.00) Introduction to non-fiction in form of selected examples of autobiography and biography as literary mode. Meets jointly with 23.602.

23.302 PSYCHOANALYSIS AND THE LITERARY PROCESS (c 01.00) After brief introduction to psychoanalysis, exploration of its implications for literary study: necessary relations between authors and their works and between these works and their readers, i.e., dynamics of the reading process. Emphasis on apprehending and sharing personal interactions with Literature. Meets jointly with 23.602.

23.302 MODERN DRAMA (s 01.00) Modern drama, beginning with Ibsen and concluding with most recent dramatic movements: theatre of the absurd, theatre of cruelty, etc. Meets jointly with 23.602.

Studies of Literature in a Historical Context

23.303 BLACK AMERICAN WRITING (c 01.00) Survey of black American literature in new world—the United States and Caribbean—and influences Africa has made on this literature: Phillis Wheatley through Malcolm X. Meets jointly with 23.603.

23.303 HISTORY AS THEME IN AMERICAN LITERATURE (c 01.00) Study of literary works in which force of history functions as major theme or in which relationship between an individual and force of history is central. Attempt to analyze metaphors of history as they emerge from and shape such works of literature as Hawthorne's *Scarlet Letter*, Thoreau's *On Civil Disobedience*, Melville's *Benito Cereno*, Warren's *All the King's Men*, Faulkner's *The Bear*, Fitzgerald's *Tender is the Night*, Mailer's *Armies of the Night*. Meets jointly with 23.603.

23.303 MEDIEVAL LITERATURE (c 01.00) Beginnings of literature in Western Europe. Study of that literature as definition, celebration, and examination of the aesthetic and ethical values of medieval culture. Medieval epic, drama, lyric, and romance in translation. Meets jointly with 23.603.

23.303 THE PLACE OF LITERATURE IN EARLY CELTIC SOCIETY (c 01.00) Vital importance of literature in all aspects of early Indo-European society—religion, magic, government, law, education, etc.—by examining powers of the poet among medieval Irish and Welsh. Course material includes readings in history, archaeology, social structure, art, and myth, major sagas and poems of Ireland and Wales. Meets jointly with 23.603.

23.303 THE IRISH RENAISSANCE (c 01.00) Yeats, Joyce, Synge, O'Casey, Frank O'Connor, Liam O'Flaherty and other major writers of the modern Anglo-Irish literary tradition. Some attention paid to recent history of Ireland, and to relationship between literary and political nationalist movements. Meets jointly with 23.603.

23.303 AMERICAN POETRY SINCE 1950 (c 01.00) Examination of major figures and movements in poetry of the period, with concentration on Robert Lowell, Theodore Roethke, Richard Wilbur, James Dickey, and Gary Snyder. Meets jointly with 23.603.

Studies in Comparative Literature

23.304 DIRECTIONS IN MODERN FICTION (c 01.00) Selected fiction which embodies distinctive threads of twentieth century writing. Emphasis will be on both underlying philosophical premises (such as existentialism) and technique (particularly point of view). Readings will include works by such writers as Kafka, Golding, Camus, Faulkner, Robbe-Grillet, Lessing, and Bellow. Meets jointly with 23.604.

23.304 INTRODUCTION TO AFRICAN LITERATURE (c 01.00) Introduction to contemporary African writing: novel, short story, poetry, and drama. Emphasis placed upon image of African cultures as depicted in these writings. Meets jointly with 23.604.

23.304 THE NOVEL IN THE THIRD WORLD (c 01.00) Study of the novel from Third World: Africa, Asia, the Caribbean, Afro-American, American Indian, and the South Pacific. Special emphasis on way culture dictates literary forms. Meets jointly with 23.604.

23.304 THE ABNORMAL POINT OF VIEW (c 01.00) Selected novels and plays in which action perceived or dramatized through an "abnormal" point of view. Emphasis on technical aspects of point of view, author's resulting world-view, and relationship between the two. Use of madness or abnormal perception as both theme and underlying technique explored. Readings primarily but not exclusively from twentieth century literatures, including works by Shakespeare, Dostoevsky, Kafka, Pirandello, Woolf, Faulkner, and Lessing. Meets jointly with 23.604.

23.304 EUROPEAN REALISM AND NATURALISM (c 01.00) Analysis of phenomena of European realism and naturalism as they developed out of European romanticism. Included in this study is an inquiry into the background and preparation for our own twentieth-century culture. Meets jointly with 23.604.

American Literature

23.310 THE AMERICAN RENAISSANCE (c 01.00)* Studies in Emerson, Thoreau, Whitman, Poe, Hawthorne, and Melville. Significance to American culture of their art and ideas. Meets jointly with 23.610.

23.311 REALISM AND NATURALISM IN AMERICA (c 01.00)* Covers period beginning about 1865 until WW I, during which American literature was influenced and modulated by two important movements, realism and naturalism. Course studies growth of those movements and literary pieces which exemplify it. An examination of the aesthetic, intellectual, and historical questions. Meets jointly with 23.611.

23.312 MODERN AMERICAN LITERATURE (c 01.00)* Study of broad modern foreground preceding the contemporary literary scene. Eliot, Hemingway, Faulkner, Frost, and others. Meets jointly with 23.612.

23.313 CONTEMPORARY AMERICAN LITERATURE (c 01.00)* Exploration of formal and thematic tendencies in recent American literature through readings of representative fiction, poetry, drama and journalism. Meets jointly with 23.613.

23.314 AMERICAN NOVEL I (c 01.00)* Survey of American novel during the nineteenth century with emphasis on literary evolution of a form as it expresses historical evolution of national consciousness. Novelists studied may include Charles Brockden Brown, James Fenimore Cooper, Harriet Beecher Stowe, Hawthorne, Melville, James, Twain, Howells. Meets jointly with 23.614.

23.315 AMERICAN NOVEL II (c 01.00)* Survey of American novel during Modernist Period with emphasis on literary evolution of a form as it expresses historical evolution of modern consciousness. Novelists studied may include Stephen Crane, Dreiser, Sinclair Lewis, Dos Passos, Fitzgerald, Hemingway, Faulkner, Nathaniel West, Henry Miller. Meets jointly with 23.615.

* A permanent part of the curriculum, but not offered every year.

British Literature

23.316 POETRY IN AMERICA (c 01.00)* Consideration, by close reading of selected poets, of some of the characteristics that help define American poetry. Meets jointly with 23.616.

23.320 SEVENTEENTH CENTURY BRITISH LITERATURE (c 01.00)* Study of British Literature in framework of political, religious and intellectual climate of seventeenth century England. Investigation includes form and style of representative drama, poetry, and prose of the age. Meets jointly with 23.620.

23.321 EIGHTEENTH CENTURY BRITISH LITERATURE (c 01.00)* Outstanding authors and dominant literary forms in neo-classical tradition. Focus on Dryden, Swift, Fielding and Johnson. Meets jointly with 23.621.

23.322 ROMANTIC BRITISH LITERATURE (c 01.00)* Elements of Romanticism, with close attention to individual literary artists. Meets jointly with 23.622.

23.323 VICTORIAN AND EDWARDIAN LITERATURE (c 01.00)* Poetry, fiction, and non-fiction prose (1830–1915) reflecting time of intellectual, social, and religious turmoil and transition. Major writers were confronting crises of belief and value that affected them and their whole society. Their work is a response to these crises. Meets jointly with 23.623.

23.324 MODERN BRITISH LITERATURE (c 01.00)* Selected literature by twentieth century British writers. Course considers both changing ideas and changing form of modern literature in Britain. Matters of technique, style, and form, as well as thematic considerations discussed. Readings include Joyce, Lawrence, Forster, Woolf, Huxley, Murdoch, Golding, Fowles, and others, as well as selected poets and essayists.

23.325 BRITISH NOVEL I (c 01.00)* Reading and discussion of major novelists of eighteenth century England: DeFoe, Richardson, Fielding, Smollett, and Sterne. Each novel studied as unique fiction and as contribution to the novel.

23.326 BRITISH NOVEL II (c 01.00)* Reading and discussion of such major novelists as Dickens, Thackeray, Eliot, Trollope, Hardy, and others. Emphasis on form and technique.

Literature in Translation

23.330 FRENCH LITERATURE IN TRANSLATION (c 01.00)* Designed to introduce student to selected masterpieces of French Literature. Reading list will vary, but there will be selections from *chanson de geste*, the medieval romance, Renaissance humanism, seventeenth-century classicism, Enlightenment, Romanticism, and more recent literature. Meets jointly with 23.630.

23.331 RUSSIAN LITERATURE IN TRANSLATION (c 01.00)* Selected readings in Russian Literature from Middle Ages to present. Meets jointly with 23.631.

Creative Writing

23.340 CREATIVE WRITING: FICTION (c 01.00) Course is writing workshop, with students reading their work aloud in class and commenting on each other's efforts. Teacher reserves right to have last word. Graduate students expected to submit 12,500 words or more. Meets jointly with 23.640.

23.341 CREATIVE WRITING: POETRY (c 01.00) Intensive approach to techniques of verse-writing, followed by several weeks of "workshop sessions" in which student poems receive responses from whole class. Meets jointly with 23.641.

23.342 CREATIVE WRITING: FILM SCRIPT (c 01.00) Problems of creating designs for original film scripts. Problems of working up treatments and scenarios. Study of special contribution of script as distinct from technique of the director and the acting performances. Viewing, analysis, and reading. Meets jointly with 23.642.

Studies in Cinema

23.350 CRITICAL APPROACH TO THE CINEMA (c 01.00) Media theory. Development of approach to film viewing. Practical criticism. Place that movies have within cultural traditions and conventions. Meets jointly with 23.650.

23.351 FILM AND LITERATURE (c 01.00) Relationship between the two, especially in terms of adaptations from one medium to the other. Problems of form, strategy, thematic modulation, narrative consistency, appropriate style. Meets jointly with 23.651.

* A permanent part of the curriculum, but not offered every year.

23.352 NATIONAL CINEMA (c 01.00) Cinematic contributions of a given country. Attention to aesthetic, historical, and theoretical matters. Reading, viewing of films, analysis. Particular national cinema to be focussed upon changes from time to time, e.g., Italian, French, Russian, etc. Meets jointly with 23.652.

23.353 MAJOR FILMMAKERS (c 01.00) Study of work of one or two great directors. Examination of particular style and content, aesthetic significance, theoretical importance, and influence. Viewing of films, analysis, and collateral reading. Subject changes from time to time, examples: Eisenstein, Griffith, Ford, Fellini, Truffaut, Bergman. Meets jointly with 23.653.

23.354 INDEPENDENT FILMMAKERS (c 01.00) Sometimes called "underground," "experimental," "avant-garde," and "new American Cinema," independent films are those produced outside established filmmaking industry. View, discuss, read about, and write about films of major independent filmmakers, such as Stan Brakhage, Hollis Frampton, Jordan Belson, and Jean-Luc Godard (with the Dziga-Vertov group). Trace development of these artists by close study of selected films and writings, and place artists in context with each other and with independent and non-independent films in general. Meets jointly with 23.654.

Reading Courses

The department offers two types of reading courses. Both allow the student to read independently and at his own pace.

23.380 READING LISTS (c 01.00) Student reads one of the twenty-three lists covering major historical periods in literary history. Except for one final examination, course fully independent. Department helps students enrolled for same lists to contact one another. Students must come to Department of Literature office to get standard departmental lists and course instructions, and make arrangements for registration.

23.390 INDEPENDENT READING COURSE IN LITERATURE (c 00.25 through 02.00)**

23.490 INDEPENDENT STUDY PROJECT IN LITERATURE (c 00.25 through 02.00)**

Internship Program

23.491 PRACTICAL INTERNSHIP IN LITERATURE (c 01.00) Practical work in writing and research for various agencies and publications. Experience in apprentice teaching with private schools and diverse groups.

See Also

Performing Arts courses which may be taken for credit toward a literature major:

67.101 INTRODUCTION TO PERFORMING ARTS: THEATRE

67.170 ORAL INTERPRETATION

67.394 MODERN AMERICAN THEATRE AND DRAMA

Graduate and Advanced Undergraduate Courses

23.590 INDEPENDENT READING COURSE IN LITERATURE (s 01.00 through 06.00)**

See Also

Performing Arts courses which may be taken for credit toward a literature major:

67.550, 67.551 HISTORY OF THEATRE I AND II

67.556 HISTORY OF AMERICAN THEATRE

67.560 CREATIVE THEORY AND CRITICISM

Graduate Courses

Graduate students who enroll in any 23.600–23.661 courses must consult the instructor about special requirements.

23.600 HISTORY OF THE ENGLISH LANGUAGE (s 03.00) Development of the language from Old English to Modern English, with special studies on phonology, morphology, semantics, and vocabulary. Meets jointly with 23.300.

**See description under "General Curriculum Information" in this publication.

Studies in Writers and Works

23.601 SHAKESPEARE I (s 03.00) Selected earlier plays. Meets jointly with 23.301.

23.601 SHAKESPEARE II (s 03.00) Selected later plays. Meets jointly with 23.301.

23.601 FITZGERALD AND HEMINGWAY (s 03.00) Study of fiction of Fitzgerald and Hemingway with emphasis upon common theme of loss in their work. Relationship between both and their place within literary period of the twenties and thirties also to be explored though main emphasis on thematic analyses of specific works. Meets jointly with 23.301.

23.601 CHAUCER (s 03.00) Study of narrative art and moral vision of Chaucer's poetry. Directed readings in social, historical, and intellectual backgrounds. Introduction to study of medieval literature. Meets jointly with 23.301.

23.601 MILTON (s 03.00) Course focuses on Milton as thinker and poet. Selections from prose works read and analyzed as background for Milton's thought. Majority of semester devoted to close reading of the poems, studied with view toward tracing Milton's development of form and his methods of projecting his world view. Requirements include short analytical papers and tests. Meets jointly with 23.301.

23.601 DOSTOEVSKY (s 03.00) Selected fiction of Dostoevsky: intensive study of some major novels and some minor work. Meets jointly with 23.301.

23.601 TOLSTOY (s 03.00) Selected fiction of L. Tolstoy; study of his narrative artistry and of his philosophical contributions. Meets jointly with 23.301.

23.601 STUDIES IN THOMAS MANN (s 03.00) Intensive reading in selected major and minor works by Thomas Mann, with occasional collateral reading of books by other twentieth century German novelists. Meets jointly with 23.301.

23.601 GEORGE BERNARD SHAW (s 03.00) Complete Shaw—playwright, socialist, pamphleteer, revolutionist, creative evolutionist, and poet. All the plays will be read and as many political and social works as seem practicable. Parallel reading of biographical and critical material assigned. Meets jointly with 23.301.

23.601 THE DRAMA OF SAMUEL BECKETT (s 03.00) Examination of Beckett's development as dramatist, from *Waiting for Godot* through *Not I*. Readings include radio and TV plays as well as stage plays. Seminar format. Meets jointly with 23.301.

23.601 AN INTRODUCTION TO *Ulysses* (s 03.00) *Ulysses* intensively explored as a novel in which all crucial novelistic problems of the twentieth century converge: point-of-view, treatment of time, role of style, fragmented narrative, use of myth, intrusion of history into fiction, autobiographical esotericism, and problem of the reader vs. the novel, the novel vs. the reader. Seminar setting; discussion paramount. One take-home exam. For mature student, recommended: Richard Ellman, *James Joyce*; also, by JJ, *Dubliners*, *Stephen Hero*, *Portrait*. Meets jointly with 23.301.

23.601 AN INTRODUCTION TO *Finnegans Wake* (s 03.00) Course is setting-up of framework within which instructor and a group of students can make the attempt to learn how to approach the *Wake* most fruitfully. Intended to offer opportunity to acquire elements of a methodology for reading this difficult and endlessly rewarding book. Especially recommended to students interested in notion of linguistic play. Meets jointly with 23.301.

Studies in Literary Forms and Literary Ideas

23.602 HISTORY OF LITERARY CRITICISM (s 03.00) Selected reading in literary criticism from Plato to T. S. Eliot. History of literary theory and of literary approaches. Meets jointly with 23.302.

23.602 MODERN CRITICISM (s 03.00) Survey of key works influencing contemporary trends in literary theory and criticism. Prior experience in college level literature courses strongly recommended. Meets jointly with 23.302.

23.602 DEVELOPMENT OF THE NOVEL (s 03.00) Theory of the novel. Study of the form of the novel from its beginnings down through Robbe-Grillet. Readings in selected novelists and critics of the novel. Meets jointly with 23.302.

23.602 ELEMENTS OF POETRY (s 03.00) Introduction to study of poetry as literary genre. Form, style, metrics, the creation of effect, critical method. Meets jointly with 23.302.

23.602 AUTOBIOGRAPHY AND BIOGRAPHY (s 03.00) Introduction to non-fiction in form of selected examples of autobiography and biography as literary mode. Meets jointly with 23.302.

23.602 PSYCHOANALYSIS AND THE LITERARY PROCESS (s 03.00) After brief introduction to psychoanalysis, exploration of its implications for literary study: necessary relations between authors and their works and between these works and their readers, i.e., dynamics of the reading process. Emphasis on apprehending and sharing our personal interactions with Literature. Meets jointly with 23.302.

23.602 MODERN DRAMA (s 03.00) Modern drama, beginning with Ibsen and concluding with most recent dramatic movements: theatre of the absurd, theatre of cruelty, etc. Meets jointly with 23.302.

Studies of Literature in a Historical Context

23.603 BLACK AMERICAN WRITING (s 03.00) Survey of black American literature in new world—the United States and Caribbean—and influences Africa has made on this literature: Phillis Wheatley through Malcolm X. Meets jointly with 23.302.

23.603 HISTORY AS THEME IN AMERICAN LITERATURE (s 03.00) Study of literary works in which force of history functions as major theme or in which relationship between an individual and force of history is central. Attempt to analyze metaphors of history as they emerge from and shape such works of literature as Hawthorne's *Scarlet Letter*, Thoreau's *On Civil Disobedience*, Melville's *Benito Cereno*, Warren's *All the King's Men*, Faulkner's *The Bear*, Fitzgerald's *Tender is the Night*, Mailer's *Armies of the Night*. Meets jointly with 23.303.

23.603 MEDIEVAL LITERATURE (s 03.00) Beginnings of literature in Western Europe. Study of that literature as definition, celebration, and examination of the aesthetic and ethical values of medieval culture. Medieval epic, drama, lyric, and romance in translation. Meets jointly with 23.303.

23.603 THE PLACE OF LITERATURE IN EARLY CELTIC SOCIETY (s 03.00) Vital importance of literature in all aspects of early Indo-European society—religion, magic, government, law, education, etc.—by examining powers of the poet among medieval Irish and Welsh. Course material includes readings in history, archaeology, social structure, art, and myth, and major sagas and poems of Ireland and Wales. Meets jointly with 23.303.

23.603 THE IRISH RENAISSANCE (s 03.00) Yeats, Joyce, Synge, O'Casey, Frank O'Connor, Liam O'Flaherty and other major writers of the modern Anglo-Irish literary tradition. Some attention paid to recent history of Ireland, and to relationship between literary and political nationalist movements. Meets jointly with 23.303.

23.603 AMERICAN POETRY SINCE 1950 (s 03.00) Examination of major figures and movements in poetry of the period, with concentration on Robert Lowell, Theodore Roethke, Richard Wilbur, James Dickey, and Gary Snyder. Meets jointly with 23.303.

Studies in Comparative Literature

23.604 DIRECTIONS IN MODERN FICTION (s 03.00) Selected fiction which embodies distinctive threads of twentieth century writing. Emphasis will be on both underlying philosophical premises (such as existentialism) and technique (particularly point of view). Readings will include works by such writers as Kafka, Golding, Camus, Faulkner, Robbe-Grillet, Lessing, and Bellow. Meets jointly with 23.304.

23.604 INTRODUCTION TO AFRICAN LITERATURE (s 03.00) Introduction to contemporary African writing: novel, short story, poetry, and drama. Emphasis placed upon image of African cultures as depicted in these writings. Meets jointly with 23.304.

23.604 THE NOVEL IN THE THIRD WORLD (s 03.00) Study of the novel from Third World: Africa, Asia, the Caribbean, Afro-American, American Indian, and the South Pacific. Special emphasis on way culture dictates literary forms. Meets jointly with 23.304.

23.604 THE ABNORMAL POINT OF VIEW (s 03.00) Selected novels and plays in which action perceived or dramatized through an "abnormal" point of view. Emphasis on technical aspects of point of view, author's resulting world-view, and relationship between the two. Use of madness or abnormal perception as both theme and underlying technique explored. Readings will be primarily but not exclusively from twentieth century literatures, including works by Shakespeare, Dostoevsky, Kafka, Pirandello, Woolf, Faulkner, and Lessing. Meets jointly with 23.304.

23.604 EUROPEAN REALISM AND NATURALISM (s 03.00) Analysis of phenomena of European realism and naturalism as they developed out of European romanticism. Included in this study is an inquiry into the background and preparation for our own twentieth-century culture. Meets jointly with 23.304.

American Literature

23.610 THE AMERICAN RENAISSANCE (s 03.00)* Studies in Emerson, Thoreau, Whitman, Poe, Hawthorne, and Melville. Significance to American culture of their art and idea. Meets jointly with 23.310.

23.611 REALISM AND NATURALISM IN AMERICA (s 03.00)* Covers period beginning about 1865 until WW I, during which American literature was influenced and modulated by two important movements, realism and naturalism. Course studies growth of those movements and literary pieces which exemplify it. An examination of the aesthetic, intellectual, and historical questions. Meets jointly with 23.611.

23.612 MODERN AMERICAN LITERATURE (s 03.00)* Study of broad modern foreground preceding the contemporary literary scene. Eliot, Hemingway, Faulkner, Frost, and others. Meets jointly with 23.312.

23.613 CONTEMPORARY AMERICAN LITERATURE (s 03.00)* Exploration of formal and thematic tendencies in recent American literature through readings of representative fiction, poetry, drama and journalism. Meets jointly with 23.313.

23.614 AMERICAN NOVEL I (s 03.00)* Survey of American novel during the nineteenth century with emphasis on literary evolution of a form as it expresses historical evolution of national consciousness. Novelists studied may include Charles Brockden Brown, James Fenimore Cooper, Harriet Beecher Stowe, Hawthorne, Melville, James, Twain, Howells. Meets jointly with 23.314.

23.615 AMERICAN NOVEL II (s 03.00)* Survey of American novel during Modernist Period with emphasis on literary evolution of a form as it expresses historical evolution of modern consciousness. Novelists studied may include Stephen Crane, Dreiser, Sinclair Lewis, Dos Passos, Fitzgerald, Hemingway, Faulkner, Nathaniel West, Henry Miller. Meets jointly with 23.315.

23.616 POETRY IN AMERICA (s 03.00)* Consideration, by close reading of selected poets, of some of the characteristics that help define American poetry. Meets jointly with 23.316.

British Literature

23.620 SEVENTEENTH CENTURY BRITISH LITERATURE (s 03.00)* Study of British Literature in framework of political, religious and intellectual climate of seventeenth century England. Investigation includes form and style of representative drama, poetry, and prose of the age. Meets jointly with 23.320.

23.621 EIGHTEENTH CENTURY BRITISH LITERATURE (s 03.00)* Outstanding authors and dominant literary forms in neo-classical tradition. Focus on Dryden, Swift, Fielding and Johnson. Meets jointly with 23.621.

23.622 ROMANTIC BRITISH LITERATURE (s 03.00)* Elements of Romanticism, with close attention to individual literary artists. Meets jointly with 23.322.

23.623 VICTORIAN AND EDWARDIAN LITERATURE (s 03.00)* Poetry, fiction, and non-fiction prose (1830–1915) reflecting time of intellectual, social, and religious turmoil and transition. Major writers were confronting crises of belief and value, that affected them and their whole society. Their work is a response to these crises. Meets jointly with 23.323.

23.624 MODERN BRITISH LITERATURE (s 03.00)* Selected literature by twentieth century British writers. Course considers both changing ideas and changing form of the modern literature in Britain. Matters of technique, style, and form, as well as thematic considerations discussed. Readings include Joyce, Lawrence, Forster, Woolf, Huxley, Murdoch, Golding, Fowles, and others, as well as selected poets and essayists. Meets jointly with 23.324.

23.625 BRITISH NOVEL I (s 03.00)* Reading and discussion of major novelists of Eighteenth Century England: DeFoe, Richardson, Fielding, Smollett, and Sterne. Each novel studied as unique fiction and as contribution to the novel. Meets jointly with 23.325.

23.626 BRITISH NOVEL II (s 03.00)* Reading and discussion of such major novelists as Dickens, Thackeray, Eliot, Trollope, Hardy, and others. Emphasis on form and technique. Meets jointly with 23.326.

Literature in Translation

23.630 FRENCH LITERATURE IN TRANSLATION (s 03.00)* Designed to introduce student to selected

* A permanent part of the curriculum, but not offered every year.

masterpieces of French Literature. Reading list will vary, but there will be selections from chanson de geste, the medieval romance, Renaissance humanism, seventeenth-century classicism, Enlightenment, Romanticism, and more recent literature. Meets jointly with 23.330.

23.631 RUSSIAN LITERATURE IN TRANSLATION (s 03.00)* Selected readings in Russian Literature from Middle Ages to present. Meets jointly with 23.331.

Creative Writing

23.640 CREATIVE WRITING: FICTION (s 03.00) Course is writing workshop, with students reading their work aloud in class and commenting on each other's efforts. Teacher reserves right to have last word. Graduate students expected to submit 12,500 words or more. Meets jointly with 23.340.

23.641 CREATIVE WRITING: POETRY (s 03.00) Intensive approach to techniques of verse-writing, followed by several weeks of "workshop sessions" in which student poems receive responses from whole class. Meets jointly with 23.341.

23.642 CREATIVE WRITING: FILM SCRIPT (s 03.00) Problems of creating designs for original film scripts. Problems of working up treatments and scenarios. Study of special contribution of script as distinct from technique of the director and the acting performances. Viewing, analysis, and reading. Meets jointly with 23.342.

Studies in Cinema

23.650 CRITICAL APPROACH TO THE CINEMA (s 03.00) Media theory. Development of approach to film viewing. Practical criticism. Place that movies have within cultural traditions and conventions. Meets jointly with 23.350.

23.651 FILM AND LITERATURE (s 03.00) Relationship between the two, especially in terms of adaptations from one medium to the other. Problems of form, strategy, thematic modulation, narrative consistency, appropriate style. Meets jointly with 23.351.

23.652 NATIONAL CINEMA (s 03.00) Cinematic contributions of a given country. Attention to aesthetic, historical, and theoretical matters. Reading, viewing of films, analysis. Particular national cinema to be focused upon changes from time to time, e.g., Italian, French, Russian, etc. Meets jointly with 23.352.

23.653 MAJOR FILMMAKERS (s 03.00) Study of work of one or two great directors. Examination of particular style and content, aesthetic significance, theoretical importance, and influence. Viewing of films, analysis, and collateral reading. Subject changes from time to time, examples: Eisenstein, Griffith, Ford, Fellini, Truffaut, Bergman. Meets jointly with 23.353.

23.654 INDEPENDENT FILMMAKERS (s 03.00) Sometimes called "underground," "experimental," "avant-garde," and "new American Cinema," independent films are those produced outside established filmmaking industry. View, discuss, read about, and write about films of major independent filmmakers, such as Stan Brakhage, Hollis Frampton, Jordan Belson, and Jean-Luc Godard (with the Dziga-Vertov group). Trace development of these artists by close study of selected films and writings, and place artists in context with each other and with independent and non-independent films in general. Meets jointly with 23.354.

23.660 INTRODUCTION TO FOLKLORE I (s 03.00) General survey of forms of international and American folklore, verbal and non-verbal: superstition, magic, proverbs, riddles, jokes, legends, folktales, folksongs, ballads, folk music, games, cures, calendar customs, folk religion, crafts, folk art. Some film and field trip assignments. Lecture and discussion. Meets jointly with 23.260.

23.661 INTRODUCTION TO FOLKLORE II (s 03.00) Study of major forms of international and American oral narrative: legends, ballads, folktales, and epics. Meets jointly with 23.261

23.690 INDEPENDENT STUDY PROJECT IN LITERATURE (s 01.00 through 06.00)**

23.691 IN-SERVICE TRAINING IN COLLEGE TEACHING (s 01.00 through 06.00)

23.725 STUDIES IN LITERARY MODES (s 03.00) Graduate seminar. Study of various kinds of literary expression. Topic changed yearly. Previous topics have included The Comic Vision, Short American Fiction, Formal Theory of the Novel, Tragedy, etc.

23.726 STUDIES IN MAJOR WRITERS (s 03.00) Graduate seminar. Study of the works of one or

* A permanent part of the curriculum, but not offered every year.

** See description under "General Curriculum Information" in this publication.

two selected writers. Topic changed yearly. Previous topics have included Whitman and Eliot, Yeats, Melville, Stevens, Swift and Johnson, etc.

23.750 THEORY OF LITERARY CRITICISM (s 03.00) Required of Ph.D. candidates. Open to other graduate students by permission of instructor.

23.753 THEORY OF LITERARY HISTORY (s 03.00) Required of all Ph.D. candidates. Open to other graduate students by permission of instructor.

23.756 THEORY OF LITERARY FORM (s 03.00) Required of Ph.D. candidates. Open to other graduate students by permission of instructor.

23.757 THEORY OF LITERARY FORM (s 03.00) Required of Ph.D. candidates. Open to other graduate students by permission of instructor.

23.758 THEORY OF LITERARY IDEAS (s 03.00) Required of Ph.D. candidates. Open to other graduate students by permission of instructor.

23.759 THEORY OF LITERARY IDEAS (s 03.00) Required of Ph.D. candidates. Open to other graduate students by permission of instructor.

23.797 MASTER'S THESIS (s 01.00 through 06.00)

75.700 THE FOLGER SEMINAR IN RENAISSANCE AND EIGHTEENTH-CENTURY STUDIES Each semester three graduate seminars are offered. Graduate students at The American University are eligible to participate and should consult either Chairman of the University's Interdisciplinary Studies Committee or department's Director of M.A. Studies. May be taken more than one semester.

Marine Science

COORDINATOR William C. Banta (Biology Department)

One of the largest series of field courses in marine and environmental sciences in the nation is offered through The American University. Among the many programs at the University is a summer field program offered through the Marine Science Consortium, a non-profit organization of nineteen colleges and universities. The Consortium operates two field laboratories.

The Wallops Island Marine Science Center (WIMSC) is located on the southern Atlantic coast of the Delmarva Peninsula just south of the Maryland-Virginia state line. The laboratories are adjacent to the Wallops Island Base of the National Aeronautics and Space Administration (NASA), about fifteen miles from the town of Chincoteague, Virginia. The laboratories are located in an area with immediate access to representatives of nearly every major local environment. Freshwater lakes, streams, marshes and swamps abound; forests, meadows and cultivated fields are scattered throughout the area; marine environments include extensive salt marshes, sandy shores, docks and pilings, estuaries, lagoons, and open ocean. Buses are provided for large classes, but small classes rely heavily on shared rides in private automobiles.

The Delaware Bay Marine Science Center (DBMSC) is located about two miles from Lewes, Delaware, near Cape Henlopen. The laboratory is adjacent to the Cape May-Lewes Ferry and near the marine laboratory of the University of Delaware. The laboratory is on a sandy beach of the Delaware Bay in a sheltered, slightly brackish marine environment. A wide variety of biological and geological situations are within easy access, but the laboratory especially emphasizes marine geology, oceanography and open water marine biology courses.

Both laboratories have complete dormitory, cafeteria and seagoing facilities. There are about ten vessels for classes, the largest of which is the ninety foot *Annandale*, a floating oceanographic laboratory with a crew of five and space for fifteen students and scientists. Students live at the laboratories and take only one course at a time; they may register for as many as five three week courses during any one summer. Professors normally live with or close by students, allowing immediate access and close student-teacher contact.

Courses are fully accredited and may be applied toward degree programs in many departments. Many are open to students without prerequisites, and field courses may apply as prerequisites to other courses. This enables laymen and even some advanced high school students to enroll. Through 90.500 Problems in Marine Science, graduate students may attend undergraduate courses as part of the requirements for graduate credit in the subject. Classes normally begin in mid-May, early June, late June, mid-July and early August.

Do not attempt to register for 90.xxx classes through the Registrar without first contacting the Marine Science Program office or the Department of Biology for more information.

Courses of Instruction

Undergraduate Courses

90.110 INTRODUCTION TO OCEANOGRAPHY (c 00.75) Physical, chemical, biological and geological aspects of oceans. Emphasis on laboratory and at-sea assignments.

90.211 FIELD METHODS IN OCEANOGRAPHY (c 00.75) Marine environment field work to instruct in use and application of standard oceanographic instruments and sampling devices; independent research through the initial stages of scientific project. *Prerequisite:* 90.110 or permission of the instructor.

90.212 MARINE NAVIGATION (c 00.75) Art and science of safely bringing a boat from one position to another in body of water. Topics covered include piloting (navigation within sight of land), radio bearings by radio direction finder, LORAN, OMEGA, electronic navigation, radar, celestial navigation, circles of position, celestial fix, Greenwich mean time, Greenwich hour angle. *Prerequisites:* four years high school math or permission of instructor.

90.221 MARINE INVERTEBRATES (c 00.75) Invertebrate phyla: development, reproduction, structure, function, and classification. Laboratory and field experience in collection, preservation and classification. *Prerequisite:* one year biology or permission of the instructor.

90.241 MARINE BIOLOGY (c 00.75) Plant and animal life in marine environment. Emphasis on physical, chemical, and environmental factors affecting the biota in intertidal, open-water and benthic habitats. *Prerequisite:* botany and zoology or permission of the instructor.

90.250 MANAGEMENT OF WETLAND WILDLIFE (c 00.75) Ecology and management of wetland wildlife, particularly of freshwater marshes and saltwater marshes. Special emphasis on ecosystem approach.

90.260 MARINE ECOLOGY (c 00.75) Relationship of plants and animals to physical, chemical and biological factors. *Prerequisite:* one year of biology or permission of instructor.

90.270 SCUBA DIVING (c 00.75) Lectures, pool training, open water check-out, advanced techniques, hookah diving, and specialty diving. NAUI (National Association of Underwater Instructors) Diver Certification. Students do not need to have their own SCUBA gear, but will purchase their own approved fins, mask and snorkel when classes begin; reduced rates available. *Prerequisites:* swimming ability and good health. (A standard diving physical form will be mailed to students electing the course.)

90.280 FIELD BIOLOGY (c 00.75) Principles of ecology and natural history of selected plants and animals in terrestrial, freshwater and marine environment. Course is suitable for non-science majors.

90.331 CHEMICAL OCEANOGRAPHY (c 00.75) Treatment of wide range of oceanic chemical phenomena, including salinity and age of oceans, sources and residence times of chemical constituents in sea water, geo-chemical cycles of nutrients, application of isotopes to paleo-temperature analysis, carbon dioxide/carbonate system in oceans, mineral resources and trace elements. Sampling and laboratory analysis techniques. *Prerequisite:* 90.110 and one year of chemistry or permission of instructor.

90.342 MARINE BOTANY (c 00.75) Marine and marine fringe plants of the Middle Atlantic Coast; taxonomy, ecology, distribution, life histories, physiology and economic status. Collecting, preserving, identifying and herbarium cataloging stressed. Exercises in plant ecology, deep core pollen analysis and marine microbiology included. *Prerequisite:* biology, botany or permission of instructor.

90.343 MARINE ICHTHYOLOGY (c 00.75) Marine fishes; morphology, anatomy, physiology, systematics, behavior, zoogeography, life histories and speciation. *Prerequisite:* general zoology.

90.344 ANATOMY OF MARINE CHORDATES (c 00.75) Trends in evolution of various vertebrate lines. Dissection of representative marine vertebrates, particularly those collected live on field trips. *Prerequisite:* six hours of biology, including zoology.

90.345 ORNITHOLOGY (c 00.75) Introduces student to avian fauna of seacoast and enables comparison with inland species. Lectures on distribution, behavior, physiology, and anatomy of birds. *Prerequisite:* biology or permission of the instructor.

90.362 MARINE GEOLOGY (c 00.75) Structural and sedimentary environments of continental shelf, slope, and ocean basin. Crustal structure of the earth and its relation to sedimentary record and geologic history of the oceans is examined. *Prerequisites:* 90.110 and physical geology or permission of the instructor.

90.364 PHYSICAL OCEANOGRAPHY (c 00.75) Physical and chemical properties of sea water, ocean currents, interaction of sea and atmosphere. Physics of sea and sea floor. *Prerequisites:* 90.110, a year of physics and calculus or permission of instructor.

90.398 DEVELOPMENT OF MARINE ORGANISMS (c 00.75) Study of developmental patterns, processes, and principles of marine animals, including special patterns specific for marine invertebrates and vertebrate types. *Prerequisite:* biology or zoology, including lab. work.

90.420 MARINE MICROPALAEONTOLOGY (c 00.75) Living representatives of micro-organisms important in fossil record. Emphasis on taxonomy, morphology, evolution and ecology of the Foraminifera (Sarcodina). Other groups considered. Sample collecting, preparation and analysis. *Prerequisite:* geology or biology or permission of instructor.

90.431 ECOLOGY OF MARINE PLANKTON (C 00.75) Phytoplankton and zooplankton in marine and brackish environments. Qualitative or quantitative comparisons made between planktonic populations of various types of habitats in relation to primary and secondary productivity. *Prerequisite:* one year of biology.

90.458 EXPLORATION METHODS IN MARINE GEOLOGY (c 00.75) Geophysical and geologic instruments and techniques used to study bottom topography and geology. Emphasis on basic geophysical and geologic instruments. *Prerequisite:* physical geology and one year of mathematics or permission of the instructor.

90.459 COASTAL GEOMORPHOLOGY (c 00.75) Coastal Geomorphology with emphasis on Late Cenozoic and Pleistocene sea-level changes in response to world-wide continental glaciation. Field studies of Pleistocene deposits and weathering of these deposits. *Prerequisite:* one year geology.

Graduate and Advanced Undergraduate Courses

90.500 PROBLEMS IN MARINE SCIENCE (s 01.00 through 09.00) Graduate or undergraduate students with advanced standing registering in Problems may complete the course requirements by either of the following options:

OPTION A: Student may elect to take xx.200-xx.400 level course in which he desires advanced work and complete in addition to regular course requirements an approved project in area under direction of the instructor. OPTION B: Independent Research Project. In order to be admitted to Option B, student must submit research proposal to Academic Committee of the Marine Science Consortium. Proposal must include scope and duration of proposed research, equipment and facilities required, and recommendation and approval from his academic advisor at The American University.

90.520 MARINE MICROBIOLOGY (s 03.00) Methods of collection involving sterile sample isolation, enrichment culturing, and techniques for identification of marine bacteria, yeasts and fungi. Physiological nature of marine water with reference to effect on microbial populations. *Prerequisite:* a course in general microbiology.

90.530 COASTAL SEDIMENTATION (s 03.00) Study of depositional environments of marine dominated shorelines; their processes, sediments, sedimentary facies, and models for recognizing ancient counterparts in rock record; growth and development of barrier island-tidal deltas. *Prerequisites:* introductory course in sedimentation or marine geology, or permission of the instructor.

90.540 ENVIRONMENTAL SCIENCE EDUCATION (s 03.00) Designed primarily for elementary school teachers. Study of environment from the seashore and wetlands to deciduous forest; various aspects of environmental improvements; environmental education curricula in schools; extensive field work, project. *Prerequisites:* graduate standing or permission of instructor. No special training required.

90.570 RESEARCH CRUISE: MARINE BIOLOGY (s 03.00) Oceanographic cruise on large research vessel on Atlantic Continental Shelf studying aspects of bottom topography, water circulation, and distribution of plankton and benthic forms. Demonstrations of various shipboard sampling techniques and instrumentation given. Special charge of \$50 made for this course. *Prerequisites:* permission of instructor.

90.570 RESEARCH CRUISE: MARINE GEOLOGY (s 03.00) Research cruise on board the *R/V Annandale*. Emphasis on data collection using marine geology sampling techniques, and final

reporting of results. Special charge of \$50 is made for this course. *Prerequisite:* permission of instructor.

90.570 MARINE POLLUTION RESEARCH CRUISE (s 03.00) Oceanographic Pollution Research Cruise eight to ten days aboard the *R.V. Advance II* to investigate the effects of ocean disposal of pollutants on chemical, physical and biological oceanographic parameters. Investigations conducted before, during and after the dumping with fate and behavior (dispersion and degradation) studies of the pollutants. Bio-assays and other toxicity studies also conducted. Procedures, techniques and equipment prepared and standardized prior to the cruise, and final project report prepared and submitted for course grade. Special charge of \$50 is made for this course. *Prerequisites:* Field Methods in Oceanography, Chemical or Biological Oceanography, or previous MSC cruise, and permission of the instructor.

90.598 TOPICS IN MARINE SCIENCE: CORROSION IN THE MARINE ENVIRONMENT (s 01.00) Aqueous corrosion including theory, various forms of corrosion attack, and theory and technology of corrosion control. Economic aspects of corrosion, biofouling and their countermeasures. *Prerequisite:* general chemistry.

90.598 TOPICS IN MARINE SCIENCE: OCEAN RESOURCES (s 01.00) Energy, waste disposal, energy sources, offshore oil and mineral resources, fisheries, marine waste disposal, recreation.

90.598 TOPICS IN MARINE SCIENCE: REMOTE SENSING (s 01.00) Survey of remote sensing techniques used to study the coastal environment. Seminars by NASA personnel actively engaged in ERTS program and other remote sensing developments. *Prerequisite:* one year of physics.

90.598 TOPICS IN MARINE SCIENCE: SYNTHETIC MEMBRANES (s 01.00) Desalination membranes: their efficiency against traditional desalination methods. Emphasis on new theory of water transmission through cellulose acetate membranes. Participants will learn how to make membranes and test them for variety of separations. *Prerequisite:* one year physics or chemistry or biology.

90.598 TOPICS IN MARINE SCIENCE: CONSEQUENCES OF ECONOMIC GROWTH IN COASTAL REGIONS (s 03.00) Impact of economic growth on the ecology and human welfare on the coastal zone with emphasis on eastern United States and the Chinocoteague area in particular. Analytical techniques are used in evaluating the impact of growth. *Prerequisites:* introductory course in economics.

Mathematics, Statistics, and Computer Science

CHAIRMAN David S. Crosby

FULL-TIME FACULTY

Professor D. S. Crosby, M. W. Gray, R. A. Holzager, W. W. Jacobs, B. P. Korin, N. Macon, G. S. Quinn (Emeritus), S. H. Schot, J. H. Smith (Emeritus in Residence)

Associate Professor E. B. McCue, H. Rosenblatt, J. S. Sunley

Assistant Professor A. M. Barron, I. L. Chang, M. Freeman, C. Hallahan, K. Koymen, C. T. Machlin, D. P. Mather, S. Parker, H. Wilson

FIELDS OF STUDY Algebra, analysis, number theory, differential equations, applied mathematics, numerical analysis, probability statistics, computer science.

Undergraduate Degree Programs

Bachelor of Science

MAJORS IN MATHEMATICS, STATISTICS, COMPUTER SCIENCE

ADMISSION TO THE MAJOR Freshmen and transfers will be counseled by the department. Formal admission to the majors in Mathematics and Statistics is allowed after the student has completed Calculus I, II, III. Admission to other majors in this department requires one year of the appropriate Calculus courses. Admission to the Computer Science major also requires 41.260 and 41.261.

For admission to the majors the above courses must be passed with C or better, and the student must have at least a 2.00 cumulative average.

COMPOSITION AND READING REQUIREMENT See "Undergraduate Degree Requirements" in this publication.

LANGUAGE REQUIREMENT See opening section under "College of Arts and Sciences" in this publication.

DEPARTMENT REQUIREMENTS All courses in this department required for the major must be passed with C or better. The student must have at least a 2.00 cumulative average in all registrations in courses in this department.

MATHEMATICS MAJOR

Major Courses 41.111, 41.222, 41.223, 41.310, 41.322, 41.512, 41.513, 41.520, 41.521. Two courses selected from 41.321, 41.440, 41.460, 41.461, 41.474, 69.502, 41.515, 41.540, 41.550, 41.551, 41.570, 41.612, 41.613. Students, especially those planning graduate work in mathematics, are encouraged to select additional courses in consultation with the advisor.

Required Related Courses Three courses in a field of application, to be selected in consultation with the advisor. This requirement may be waived for students with more than one major in this department and for students obtaining secondary teaching certification in mathematics.

APPLIED MATHEMATICS MAJOR

Major Courses 41.111, 41.222, 41.223, 41.310, 41.322, and either 41.321, 41.550, 41.551, or 41.260, 41.261, 41.460. Three additional courses in the department, as approved by the advisor.

Supporting Courses Three courses in a field of application, to be selected in consultation with the advisor. This requirement may be waived for students with more than one major in this department.

STATISTICS MAJOR Two tracks exist under the B.S. in Statistics: (1) Mathematical Statistics and (2) Applied Statistics. The Mathematical Statistics track emphasizes statistical theory and application and prepares students for graduate work in statistics. The Applied Statistics track emphasizes statistical methodology and requires substantial work in a related field. (In most cases, satisfaction of minor additional requirements in the related field will constitute a second major.) While the Applied Statistics track does not prepare a student for graduate work in statistics, it is a highly useful background for graduate work in the related field area.

Mathematical Statistics Track Courses 41.111, 41.222, 41.223, 41.310, 41.322, 41.474, 69.502; two additional courses selected from 69.530, 69.531, 69.515, 69.516, 41.576, 69.510, 69.511; two additional departmental courses.

Applied Statistics Track Courses 41.101, 41.102, 69.202, 41.260, 41.310, 41.474, 69.502; either 69.300, 69.518, or 69.514; three additional approved departmental courses.

Applied Statistics Related Courses At least five approved courses in a related field, such as anthropology, psychology, sociology, economics, biology, business administration, or computer science. The five courses may be selected from more than one teaching unit.

COMPUTER SCIENCE MAJOR

Major Courses 41.260, 41.261, 41.360, and three approved courses selected from 41.460, 41.461, 41.530, 41.560, 41.564, 41.565, 41.566, 41.567, 41.568, 41.569, and 41.596.

Mathematics Courses One year of calculus (41.111-.222 or 41.101-.102), 41.310 and one additional course at the xx.200 level or above.

Required Related Courses Three additional courses in computer science, mathematics, and statistics; or three courses in a related field of application. These courses should be selected in consultation with a departmental advisor.

Graduate Degree Programs

Candidates for graduate degrees in all academic units must meet the requirements set forth in the University Minimum Standards for Graduate Studies. The requirements appearing below are those of this department and do not relieve degree candidates from compliance with the minimum standards.

Master of Arts

MAJOR IN MATHEMATICS

Under this degree, two programs are open. The student's program may emphasize Mathematics or Applied Mathematics.

COURSE REQUIREMENTS (1) Thesis option: twenty-four approved graduate hours plus six hours of 41.797 Master's Thesis Seminar in Mathematics and Statistics. (2) Non-thesis option: twenty-four approved graduate hours plus six hours of 41.700 Seminar in Mathematics. Topic of study in 41.700 to be chosen by consultation between student and faculty member.

COMPREHENSIVE EXAMINATION The student must take a written comprehensive examination in one of the following fields: Mathematics, Applied Mathematics, or Computer Science.

OTHER REQUIREMENTS Proficiency is required in Russian, German, French, or computer language. Thesis and oral defense of thesis is mandatory in option (1). An oral presentation of the research work undertaken in option (2) is required.

A list of courses from which the twenty-four approved hours must be chosen for each of the major areas is available in the department office. Also, reading lists for the comprehensive examinations are available.

MAJOR IN STATISTICS

Two programs are available under the Master of Arts in Statistics: Mathematical Statistics and Applied Statistics. The Mathematical Statistics program emphasizes work in statistical theory and is recommended for students planning further graduate work in Statistics. The Applied Statistics program requires a foundation in statistical theory with emphasis on statistical methodology.

COURSE REQUIREMENTS While specific courses are not required, a minimum of thirty graduate hours, including a thesis or research project, is required. Typical programs would be as follows: (1) Mathematical Statistics: 69.530-.531, 41.510, 41.574, 69.584, 69.600, 69.610, and two additional courses in Mathematics or Statistical Theory. (2) Applied Statistics: 69.530-.531, 41.574, 69.584, 69.600, and four additional courses in statistical methods and applications (including approved related courses given in other teaching units).

In either program, qualified students may take up to twelve hours as Independent Research Projects, including work study arrangements.

THESIS OR RESEARCH PROJECT Under either program, one of the following must be satisfied: (1) Master's Thesis in Statistics or (2) Independent Research Project or Seminar.

WRITTEN COMPREHENSIVES A comprehensive examination (administered in two parts) is required. Mathematical Statistics: 69.001, Statistical Theory and Probability. Applied Statistics: 69.005, Statistical Theory and Applications.

OTHER REQUIREMENTS Under either program, (1) a tool of research selected from French, German, Russian, and computer language, and (2) an oral presentation and defense of the thesis or research project are required.

Master of Science

MAJOR IN COMPUTER SCIENCE

COURSE REQUIREMENTS A minimum of eight approved graduate hours, six of which must be in computer science. The remaining courses may be chosen from graduate level offerings in computer science, mathematics, statistics, or a related field. These choices must be approved *in advance* by an advisor.

Prerequisites for graduate courses may be satisfied with either approved undergraduate courses or appropriate professional experience.

THESIS OR RESEARCH PROJECT One of the following options must be chosen: (1) Thesis: The student must write a Master's Thesis of sufficient scope to earn six hours of graduate credit. (2) Research Project: The student must complete six hours of Independent Research Project or Seminar.

WRITTEN COMPREHENSIVE A two-part written comprehensive examination (41.050) must be passed. (1) Principles of Computer Science: Topics include material such as that contained in the

courses Systems Programming, Computer Organization, and the year sequence survey Survey of Computer Science. (2) Field of Specialization: Areas of specialization include: (a) Metatheory (Automata Theory, Formal Language Theory); (b) Artificial Intelligence (Artificial Intelligence, Theorem Proving); (c) Systems Software (Organization of Computer Files, Operating Systems, Computer Graphics); (d) Information Storage and Retrieval (Organization of Computer Files, Information Storage and Retrieval); (e) Theory of Programming (Programming Languages, Introduction to Compilers).

OTHER REQUIREMENTS (1) An approved tool of research. (2) An oral presentation of the thesis or research project.

Doctor of Philosophy

MAJOR IN MATHEMATICS

COURSE REQUIREMENTS Minimum of seventy-two hours of approved graduate work is required including twelve semester hours in 41.799 Doctoral Dissertation Seminar in Mathematics and Statistics. In addition to the Doctoral Dissertation Seminar, at least thirty semester hours must be completed in residence at The American University.

EXAMINATION REQUIREMENTS A qualifying examination must be taken before completion of twenty-four hours of course work in the doctoral program. Four comprehensive examinations are required, three written and one oral. The fields for the written examinations are: 41.005 Real and Complex Variables and 41.006 Modern Algebra and Linear Algebra; and a third field chosen from the following: 41.018 Numerical Analysis; 41.026 Topology; 41.027 Applied Mathematics; 41.028 Operations Research; 41.029 Probability and Statistics; 41.030 Computer Science.

OTHER REQUIREMENTS Proficiency is required in two tools of research chosen from French, German, Russian, and computer language. The dissertation must be directed by a fulltime faculty member and an oral defense of the dissertation is required.

MAJOR IN MATHEMATICS EDUCATION

COURSE REQUIREMENTS A minimum of thirty hours of approved graduate course work in addition to credit earned for the master's degree are required. An additional twelve hours of Doctoral Dissertation Seminar are required, six of which must be earned through the Department of Mathematics and Statistics and six through the School of Education. The department and school should be consulted with respect to the specific course requirements which must be satisfied in mathematics and education.

EXAMINATION REQUIREMENTS Four comprehensive examinations are required. The two examinations administered by the School of Education are: 21.022 Psychology of Education and 21.031 Mathematics Education. The two examinations administered by the Department of Mathematics and Statistics are: 41.070 Mathematics for Mathematics Education and 41.072 Oral Examination in Mathematics.

OTHER REQUIREMENTS Proficiency is required in two tools of research. One tool must be either (1) Educational and Psychological Measurement and Evaluation or (2) Statistics (given by the Department of Mathematics and Statistics). The second tool may be selected from French, German, Russian, and computer programming. The dissertation must be directed by a full-time faculty member and an oral defense of the dissertation is required.

MAJOR IN STATISTICS

COURSE REQUIREMENTS A minimum of seventy-two semester hours of approved graduate work is required, which includes at least twelve semester hours in 41.799 Doctoral Dissertation Seminar in Mathematics and Statistics. At least thirty semester hours (plus dissertation credit) must be completed in residence at The American University.

EXAMINATION REQUIREMENTS A qualifying examination must be taken before completion of twenty-four hours of course work in the doctoral program. Four comprehensive examinations are required, three written and one oral. The fields for the written examinations are: 69.002 Advanced Statistical Theory (administered in two parts) and 41.024 Probability; and a third field chosen from the following: 69.028 Linear Estimation; 69.029 Multivariate Analysis; 69.030 Decision Theory; 69.020 Theory of Sampling; 41.023 Stochastic Processes.

OTHER REQUIREMENTS Proficiency is required in two tools of research chosen from French, German, Russian, and computer language. The dissertation must be directed by a fulltime faculty member and an oral defense of the dissertation is required.

Courses of Instruction

MATHEMATICS

Undergraduate Courses

41.100 FINITE MATHEMATICS (c 01.00) Sets, real numbers, solution of equations, inequalities, probability, functions, elementary linear algebra. Applications to biology, business and social sciences. No credit towards mathematics major.

41.101 APPLIED CALCULUS I (c 01.00) Continuity, limits, differentiation and integration. Applications to biological, social and environmental sciences and business.

No credit towards a mathematics, mathematical statistics, or applied mathematics major, but together with 41.102 meets calculus requirement for applied statistics or computer science majors. *Prerequisite:* 41.100 or permission of instructor.

41.102 APPLIED CALCULUS II (c 01.00) Calculus of several variables, matrices, series and differential equations. Applications to biological, social and environmental sciences and business. No credit towards mathematics, mathematical statistics, or applied mathematics major, but together with 41.101 meets requirement for applied statistics or computer science majors. *Prerequisite:* 41.101 or 41.111.

41.105, 41.106 THE NATURE OF MATHEMATICS I, II (c 01.00) (c 01.00) Nontechnical course. Interplay of mathematics with natural, social, and physical sciences and humanities.

41.109 BASIC MATHEMATICS (c 00.25 through 01.00) Course designed for those with deficiencies in mathematics background which affect ability to perform adequately in other mathematics courses. Offered in four sections with the student electing those sections needed to complete his background. Student may register for 00.25, 00.50, 00.75, or full course unit credit. Sections are: (1) Basic Arithmetic, (2) Basic Algebra, (3) Intermediate Algebra, and (4) Basic Trigonometry. Texts will be chosen to facilitate the student's individual work efforts. The course may be taken on a pass/fail basis only.

41.110 FUNDAMENTALS OF MATHEMATICS (c 01.00) Fundamentals of sets, functions, algebra, and trigonometry intended for students planning to continue in 41.111. *Prerequisite:* three years of high school mathematics.

41.111 CALCULUS I (c 01.00) Real numbers; coordinate systems; functions; limits and continuity; differentiation and applications; trigonometric functions; indefinite and definite integration and applications; fundamental theorem of integral calculus. *Prerequisite:* 41.110 or four years of high school mathematics.

41.222 CALCULUS II (c 01.00) Techniques of integration; calculus of transcendental functions; infinite series; power series representations; analytic geometry. *Prerequisite:* 41.111.

41.223 CALCULUS III (c 01.00) Vectors; functions of several variables; partial differentiation; multiple integrals. *Prerequisite:* 41.222.

41.310 LINEAR ALGEBRA (c 01.00) Vector spaces, systems of linear equations, solutions by matrices, determinants, linear transformations, algebraic forms. *Prerequisite:* 41.102 or 41.222 or taken concurrently with 41.222.

41.321 DIFFERENTIAL EQUATIONS (c 01.00) First-order first-degree equations, linear equations of nth order with constant coefficients, Laplace transforms, applications of mechanics and electrical circuits, special equations of higher order, solution in series. *Prerequisite:* or co-requisite 41.223.

41.322 CALCULUS IV (c 01.00) Point sets in several variables, partial derivatives, Lagrange multipliers, Jacobians, implicit and inverse transformation theorems, quadratic forms, vectors and line integrals, theorems of Green, Gauss, and Stokes. *Prerequisite:* 41.223.

41.390 INDEPENDENT READING COURSE IN MATHEMATICS-COMPUTER SCIENCE (c 00.25 through 02.00)*

* See description under "General Curriculum Information" in this publication.

- 41.440 GEOMETRY (c 01.00)** Selected topics in differential, projective or non-euclidean geometry.
- 41.460 INTRODUCTION TO NUMERICAL METHODS (c 01.00)** Introduction to numerical algorithms fundamental to scientific computation. Includes elementary discussion of error, solution of polynomial equations, and solution of systems of algebraic equations. *Prerequisites:* 41.261 and 41.102 or 41.222.
- 41.474 PROBABILITY (c 01.00)** Algebra of sets; probability in discrete sample spaces; combinatorial analysis; random variables; binomial, Poisson, normal and other distributions; applications. *Prerequisite:* 41.102 or 41.222.
- 41.480 HISTORY OF MATHEMATICS (c 01.00)** Mathematics in antiquity: Egypt, Mesopotamia, and ancient Greece. Renaissance and mathematics since 1600. Historical development of geometry, algebra, and calculus. Rigorization of analysis. Non-Euclidean geometry and axiomatics. Selected topics in modern mathematics.
- 41.490 INDEPENDENT STUDY PROJECT IN MATHEMATICS-COMPUTER SCIENCE (c 00.25 through 02.00)***

Graduate and Advanced Undergraduate Courses

- 41.502, 41.503 FOUNDATIONS OF MATHEMATICS (s 03.00) (s 03.00)** Introduction to symbolic logic, axiomatics, set theory, transfinite numbers. Peano's axioms, Dedekind cuts, number systems, philosophy of mathematics. *Prerequisite:* junior standing or above in mathematics or computer science. Not for graduate credit in mathematics. Recommended for teachers.
- 41.510 MATRIX THEORY FOR APPLICATIONS (s 03.00)** Vector spaces, linear transformations, similarity, rational and classical canonical forms, unitary spaces, unitary equivalence, quadratic forms, congruence, rings of matrices, matrix representations of groups and algebras, applications to statistics, physics and other fields. Not intended for graduate students in mathematics. *Prerequisite:* 41.310.
- 41.512, 41.513 INTRODUCTION TO MODERN ALGEBRA (s 03.00) (s 03.00)** Groups, rings, vector spaces and modules, fields and Galois theory. *Prerequisite:* 41.310 or permission of instructor.
- 41.515 NUMBER THEORY (s 03.00)** Divisibility; fundamental theorem of arithmetic; congruences; arithmetic functions; Diophantine equations; quadratic residues; sums of squares; partitions. *Prerequisite:* 41.222.
- 41.518 LINEAR PROGRAMMING (s 03.00)** Theoretical, computational and applied areas. Topics include: convex sets, linear inequalities, extreme-point solutions, the simplex algorithm, duality problems, the transportation problem and method of solution, applications, theory of games. *Prerequisites:* 41.310 or permission of department.
- 41.519 ADVANCED TOPICS IN MATHEMATICAL PROGRAMMING (s 03.00)** Revised simplex algorithm, dual-simplex algorithm, integer programming, solution of large-scale systems, the decomposition algorithm, nonlinear programming, network analysis, parametric programming, sensitivity analysis. *Prerequisite:* 41.518, or permission of department.
- 41.520, 41.521 INTRODUCTION TO ANALYSIS I, II (s 03.00) (s 03.00)** Analysis in Euclidean and metric spaces; point sets; completeness; convergence; continuity; differentiability; integration. *Prerequisite:* 41.322.
- 41.523 ORDINARY DIFFERENTIAL EQUATIONS (s 03.00)** Topics from existence theorems, Riccati equations. Solutions in power series, regular and irregular singular points, two-point boundary-value problems, Sturm-Liouville theory, orthogonal functions. *Prerequisites:* 41.321.
- 41.524 PARTIAL DIFFERENTIAL EQUATIONS (s 03.00)** First and second order linear equations, type, characteristics, reduction to normal forms, separation of variables, Poisson's formula, Green's function. *Prerequisite:* 41.321.
- 41.528 DIFFERENTIABLE MANIFOLDS (s 03.00)** Differentiable manifolds, vectors, tensors, and differential forms. Frobenius theorems, Riemannian geometry, Lie groups. *Prerequisites:* 41.310 and 41.520.
- 41.540 TOPOLOGY (s 03.00)** Topological spaces, continuity, compactness, connectedness, metric spaces. *Prerequisite:* 41.322.

*See description under "General Curriculum Information" in this publication

41.550 MATHEMATICS FOR PHYSICS I (s 03.00) Complex variables. Cauchy's theorem and integral formulas. Residue theorem and contour integration. Conformal mapping. Fourier series, integrals, transforms, and inverse transforms. Laplace transform methods. *Prerequisite:* 41.321 or 41.322.

41.551 MATHEMATICS FOR PHYSICS II (s 03.00) Oscillatory systems and normal modes. Eigenvalues and diagonalization of matrices. Wave equation. Vibrating strings and membranes. Orthogonal functions. Heat equation. Laplace's equation. Green's function. Variational methods. Tensors. *Prerequisite:* 41.550.

41.560 NUMERICAL ANALYSIS: BASIC PROBLEMS (s 03.00) Iterative solution of non-linear equations. Special methods for polynomials. Basic theory of polynomial approximation. *Prerequisites:* 41.460 and either 41.321 or 41.322.

41.561 NUMERICAL ANALYSIS: ALGEBRA (s 03.00) Norms of vectors and matrices. Numerical solution of linear systems. Matrix inversion. Computation of eigenvalues and eigenvectors. *Prerequisite:* 41.560.

41.562 NUMERICAL ANALYSIS: ANALYSIS (s 03.00) Numerical Quadrature, Linear difference equations. Consistency, convergence, and stability. *Prerequisite:* 41.560.

41.563 SELECTED TOPICS IN NUMERICAL ANALYSIS (s 03.00) Special topics are selected from such areas as partial differential equations or numerical approximation. *Prerequisite:* permission of instructor.

41.570 COMPLEX VARIABLES FOR APPLICATIONS (s 03.00) Selected topics in complex variables; integrals of analytic functions; uniform convergence; power series; singularities; residues and contour integration. Fall. *Prerequisite:* 41.321 or 41.322.

41.574 THEORY OF PROBABILITY I (s 03.00) Measure theory, Lebesgue integral, random variables. distribution functions, generating and characteristic functions, special distributions and statistics, limit theorems. Fall. *Prerequisites:* 41.322 and 41.474 or permission of instructor.

41.575 THEORY OF PROBABILITY II (s 03.00) Mathematical aspects, limit theorems, characterizations, other topics in the development of probability theory. *Prerequisite:* 41.574.

41.576 MATHEMATICAL METHODS OF OPERATIONS RESEARCH (s 03.00) Short review of probability theory, Laplace transforms as used in probability theory. Stochastic processes and their use in industrial problems. Queueing theory, birth-death processes, other models where interarrival or service-time distributions are nonexponential, Inventory theory; linear and dynamic programming under uncertainty. *Prerequisites:* 41.474 and 69.502.

41.590 INDEPENDENT READING COURSE IN MATHEMATICS-COMPUTER SCIENCE (s 01.00 through 06.00)*

Graduate Courses

41.610 ADVANCED LINEAR ALGEBRA (s 03.00) Matrix theory, introduction to multilinear algebra, tensor products, orthogonal spaces, classical groups, algebras, projective geometry, infinite dimensional spaces. *Prerequisites:* 41.412.

41.612, 41.613, 41.614 MODERN ALGEBRA I, II, III (s 03.00), (s 03.00), (s 03.00) Selected topics from group theory: isomorphism theorems, Sylow theorems, classification of groups, solvable and nilpotent groups, p-groups, direct products, free groups, extensions. Ring theory: ideal theory in commutative rings, factorization theory, Noetherian and Artinian rings, Wedderburn-Artin theorem, Jacobson radical, algebras. Field theory: extensions, Galois theory, Kummer theory, valuations, Dedekind fields, algebraic number theory. *Prerequisite:* 41.512.

41.616 HOMOLOGICAL ALGEBRA (s 03.00) Homology, cohomology, homological dimension, Ext and Tor, spectral sequences, category theory. *Prerequisite:* 41.513.

41.620, 41.621 ANALYTIC FUNCTIONS I, II (s 03.00) (s 03.00) Differentiation and integration of complex-valued functions, analyticity, Cauchy's theorems, Laurent series, singularities, contour integration and residue calculus, conformal mapping, analytic continuation, Weierstrass' and Mittag-Leffler's theorems. *Prerequisite:* 41.521.

41.624 ADVANCED TOPICS IN COMPLEX VARIABLES (s 03.00) Topics from: Conformal mapping and Riemann mapping theorem, schlicht functions and distortion theorems, Riemann surfaces and

* See description under "General Curriculum Information" in this publication.

uniformization, entire functions, normal families, elliptic functions, and automorphic functions. *Prerequisite:* 41.621.

41.625 CALCULUS OF VARIATIONS (s 03.00) Extremization of functionals. Euler, Legendre, Weierstrass and Jacobi necessary conditions. Sufficient conditions for weak and strong extrema. Extramural fields and Hilbert's invariant integral. Isoperimetric problems and inequalities. Direct methods. *Prerequisite:* 41.551.

41.626 INTEGRAL EQUATIONS (s 03.00) Fredholm equations and theorems. Neumann series, resolvent, degenerate kernels. Hilbert-Schmidt theory, symmetric kernels, eigenfunction expansions, properties and estimation of eigenvalues. Application to boundary value problems. Singular integral equations. *Prerequisite:* 41.551.

41.630 MEASURE AND INTEGRATION (s 03.00) Measurability; integration and convergence theorems. L_p spaces, modes of convergence, differentiation, introduction to probability. *Prerequisite:* 41.521.

41.631 FUNCTIONAL ANALYSIS (s 03.00) Banach and Hilbert spaces; Hahn-Banach, open-mapping, closed-graph, and uniform boundedness theorems; introduction to spectral theory. *Prerequisite:* 41.630.

41.632 ADVANCED TOPICS IN REAL VARIABLES (s 03.00) Locally convex spaces, duality theory, operator theory, Fourier analysis. *Prerequisite:* 41.631.

41.641, 41.642 ALGEBRAIC TOPOLOGY I, II (s 03.00) (s 03.00) **I:** Covering spaces, fundamental groups, surfaces, introduction to homology. *Prerequisites:* 41.540, 41.512. **II:** Homology groups, higher homotopy groups, fixed point theorems, manifolds. *Prerequisite:* 41.641.

41.654 PARTIAL DIFFERENTIAL EQUATIONS OF MATHEMATICAL PHYSICS I (s 03.00) Second order hyperbolic equations, characteristics, Cauchy and Goursat problems, Riemann's method, quasilinear equations. Legendre transformation, wave equation in n -dimensions, spherical means, Hadamard's method. *Prerequisites:* 41.524 or 41.551.

41.655 PARTIAL DIFFERENTIAL EQUATIONS OF MATHEMATICAL PHYSICS II (s 03.00) Second order elliptic, parabolic, and mixed equations, problems of Dirichlet and Neumann, Green's function, potentials of volume and surface distributions, diffusion phenomena, Tricomi's equation. *Prerequisite:* 41.654.

41.656 MATHEMATICAL THEORY OF FLUID DYNAMICS I (s 03.00) Basic kinematic and dynamics concepts, incompressible fluids, vorticity and circulation theorems, potential and stream function, plane and axially symmetric flows, conformal mapping, aerofoils, vortex lines and streets, jets and free streamline problems. *Prerequisite:* 41.551.

41.657 MATHEMATICAL THEORY OF FLUID DYNAMICS II (s 03.00) Dynamics and thermodynamics of compressible fluids, subsonic, transonic, and supersonic flows, Prandtl-Busemann method, hodograph method, shock waves, viscous fluids, boundary layer theory, and turbulence. *Prerequisite:* 41.656.

41.690 INDEPENDENT STUDY PROJECT IN MATHEMATICS-COMPUTER SCIENCE (s 01.00 through 06.00)*

41.700 SEMINAR IN MATHEMATICS (s 01.00 through 06.00) Research in mathematics, involving individual projects. May be repeated for credit.

41.797 MASTER'S THESIS SEMINAR IN MATHEMATICS AND STATISTICS (s 03.00 through 06.00)

41.799 DOCTORAL DISSERTATION SEMINAR IN MATHEMATICS AND STATISTICS (s 06.00 through 12.00)

STATISTICS

Undergraduate Courses

69.202 BASIC STATISTICS (c 01.00) Classification of data, averages, dispersion, probability, frequency distributions, confidence intervals, tests of significance, non-parametric techniques, simple regression and correlation. Separate sections are made available for biology, business and economics, psychology and education, sociology and government majors. *Prerequisite:* 41.100 or permission of instructor.

* See description under "General Curriculum Information" in this publication.

69.300 BUSINESS STATISTICS (c 01.00) Estimation, inference, multiple regression and correlation. Elementary decision theory. *Prerequisite:* 69.202.

69.301 PSYCHOLOGICAL STATISTICS (c 01.00) Estimation, inference, special methods of two-variable correlation, multiple regression and correlation, design of samples and experiments, contingency tables, non-parametric techniques. *Prerequisite:* 69.202.

69.390 INDEPENDENT READING COURSE IN STATISTICS (c 00.25 through 02.00)*

69.400 MANAGERIAL STATISTICS (c 01.00) Frequency distributions; averages; dispersion; probability; making decisions under uncertainty; inferences about means; proportions, and differences; simple and multiple regression. *Prerequisite:* 41.100 or graduate status.

41.474 PROBABILITY (c 01.00) Algebra of sets; probability in discrete sample spaces; combinatorial analysis; random variables; binomial, Poisson, normal, and other distributions; applications. *Prerequisite:* 41.102 or 41.222.

69.490 INDEPENDENT STUDY PROJECT IN STATISTICS (c 00.25 through 02.00)*

Graduate and Advanced Undergraduate Courses

69.502 INTRODUCTION TO MATHEMATICAL STATISTICS (s 03.00) Probability, probability distributions, sampling, sampling distributions, introduction to the theory of point estimation and statistical inference including confidence intervals and hypothesis testing. *Prerequisites:* 41.102 or equivalent; 69.202 and 41.474 are recommended. (Not open for credit to graduate students in mathematics or statistics.)

69.510, 69.511 THEORY OF SAMPLING I AND II (s 03.00) (s 03.00) Mathematical development of basic principles of survey design including methods for determining expected value, bias, variance and mean square error; simple random, systematic, stratified, cluster, multistage, and double sampling; unbiased, ratio, regression, and composite estimation; optimum allocation of resources; controlled and other non-simple methods of selection; introduction to measurement error; comparison of alternative designs. *Prerequisites:* 69.502 or equivalent.

69.514 METHODOLOGY: GENERAL (s 03.00) Averages, dispersion, probability, sampling, approach to normality; simple and multiple regression; tests and confidence intervals for means, proportions, differences, regression coefficients; nonparametric statistics; analysis of variance. *Prerequisite:* 69.202 or equivalent.

69.515 METHODOLOGY: REGRESSION (s 03.00) Simple and multiple regression; least squares; curve fitting; graphic techniques; tests and confidence intervals for regression coefficients. *Prerequisite:* 69.514 or equivalent.

69.516 METHODOLOGY: DESIGN OF EXPERIMENTS (s 03.00) Designing and analyzing results of balanced experiments; simple analysis of variance; components of variance; analysis of covariance; related topics. *Prerequisite:* 69.514 or equivalent.

69.517 METHODOLOGY: SPECIAL TOPICS (s 03.00) Alternating topics in statistics treated from applied viewpoint. Subjects considered: sampling, multivariate techniques, factor analysis, etc. May be repeated for credit with permission of instructor. *Prerequisite:* 69.514 or equivalent.

69.518 METHODOLOGY: PSYCHOLOGICAL STATISTICS (s 03.00) Methods appropriate for analyzing data of psychological research; estimation; testing; regression; analysis of variance and covariance; interval estimates and significance tests; related topics. *Prerequisite:* 69.202 or 69.514.

69.519 METHODOLOGY: NON-PARAMETRIC STATISTICS (s 03.00) Application of non-parametric techniques in the analysis of social science data with emphasis on tests appropriate for data having interval, nominal, and ordinal scales. *Prerequisite:* 69.514 or permission of instructor.

69.530, 69.531 MATHEMATICAL STATISTICS I, II (s 03.00) (s 03.00) Distribution of random variables and functions of random variables, generating functions, order statistics, point estimation, maximum likelihood, confidence intervals, tests of hypotheses (Neyman-Pearson, likelihood ratio, etc.), linear regression, analysis of variance. Fall, Spring. *Prerequisites:* 41.322, 69.502 or equivalent, 41.310.

41.574 THEORY OF PROBABILITY I (s 03.00) Measure theory, Lebesgue integral, random variables, distribution functions, generating and characteristic functions, special distributions and statistics, limit theorems. Fall. *Prerequisites:* 41.322 and 41.474 or permission of instructor.

41.575 THEORY OF PROBABILITY II (s 03.00) Mathematical aspects, limit theorems, characterizations, other topics in the development of probability theory. *Prerequisite:* 41.574.

41.576 MATHEMATICAL METHODS OF OPERATIONS RESEARCH (s 03.00) Short review of probability theory, Laplace transforms as used in probability theory. Stochastic processes and their use in industrial problems. Queueing theory, birth-death processes, other models where interarrival or service-time distributions are nonexponential; inventory theory; linear and dynamic programming under uncertainty. *Prerequisites:* 41.474 and 69.202.

69.584 INTRODUCTION TO STOCHASTIC PROCESSES (s 03.00) Introduction to random walks, Markov chains and processes, Poisson processes, recurrent events, birth and death processes and related topics. Spring. *Prerequisite:* 41.574 or equivalent.

69.590 INDEPENDENT READING COURSE IN STATISTICS (s 01.00 through 06.00)*

Graduate Courses

69.600 ADVANCED MATHEMATICAL STATISTICS I (s 03.00) Theory of estimation, properties of estimators, large sample properties and techniques, applications. Fall. *Prerequisite:* 69.531, 41.574 (may be concurrent).

69.601 ADVANCED MATHEMATICAL STATISTICS II (s 03.00) Mathematical foundations of statistical theory special topics in mathematical statistics. *Prerequisite:* 69.600.

69.604, 69.605 STATISTICAL DECISION THEORY I AND II (s 03.00) (s 03.00) Convex sets and functions; minimax theorem; statistical games; utility and principles of choice; strategies; complete classes; Bayes procedures; principles of invariance; sequential procedures; related topics. *Prerequisite:* 69.600 (may be taken concurrently).

69.610 STATISTICAL INFERENCE I (s 03.00) Development and applications of testing theory. *Prerequisite:* 69.600.

69.611 STATISTICAL INFERENCE II (s 03.00) Methods of statistical inference, advanced topics in estimation and tests of hypotheses. *Prerequisite:* 69.610.

69.620, 69.621 MULTIVARIATE ANALYSIS I AND II (s 03.00) (s 03.00) Multivariate normal distribution, Hotelling's T ; Wilks' likelihood ratio criterion; other test statistics; classification problems; principal components; canonical correlation; general multivariate regression and experimental designs; related topics. *Prerequisites:* 41.510; 69.600 (may be taken concurrently).

69.670, 69.671 LINEAR ESTIMATION I AND II (s 03.00) (s 03.00) General linear hypothesis; least squares estimation; Gauss-Markov theorem; regression; analysis of variance; multiple comparisons; analysis of covariance; factorial designs; randomized blocks; other experimental designs; effects of departures from assumptions. *Prerequisites:* 41.510; 69.600 (may be taken concurrently).

69.674, 69.675 ADVANCED PROBABILITY AND STOCHASTIC PROCESSES I, II (s 03.00) (s 03.00) Limit theorems; infinitely divisible distributions; conditioning; martingales; Markov processes, normal processes, stationary processes, related topics. *Prerequisites:* 41.574, 69.584.

69.690 INDEPENDENT STUDY PROJECT IN STATISTICS (s 01.00 through 06.00)*

69.790 SEMINAR IN STATISTICAL THEORY AND PROBABILITY (s 03.00) Advanced topics will be considered according to the needs of the students. May be repeated for credit with permission of instructor. *Prerequisite:* 69.600.

COMPUTER SCIENCE COURSES

Undergraduate Courses

41.160 BASIC COMPUTING (c 01.00) Introduction to programming; laboratory experience with computers; emphasis on use of computers as tools in areas of the student's concentration. Language used is BASIC. *Prerequisites:* 41.100 or three years of high school mathematics. (Not intended for Computer Science majors.)

41.166 SOCIAL AND CULTURAL IMPLICATIONS OF COMPUTERS (c 01.00) Describes history of digital computer and its growing use in Western society. Academic, industrial, and governmental applications are examined. Potential benefits and risks involved in penetration by computer into all

* See description under "General Curriculum Information" in this publication.

aspects of society are discussed. Students required to prepare bibliographies and term papers on particular aspect of computers in field of interest to them. (Not intended for Computer Science majors.) *Prerequisite:* 41.160 or equivalent.

41.260 INTRODUCTION TO COMPUTING (c 01.00) First course, intended to teach student to use computers in solving problems. Prerequisite for further work in computer science, but also useful in other fields. Algorithms, flow charting, practice in FORTRAN programming. *Prerequisites:* 41.100 or three years of high school mathematics.

41.261 COMPUTERS AND PROGRAMMING (c 01.00) Provides unified view of interrelationships between digital system design, computer organization, and assembly-language programming techniques. Logical equivalence of hardware and software emphasized through the concept that an algorithm can be carried out by either a special purpose digital network or a computer program. *Prerequisite:* 41.260 or permission of instructor.

41.360 STRUCTURES AND PROGRAMMING TECHNIQUES (c 01.00) Describes techniques that lead to efficient algorithms. Includes introduction to graphs, list structures, and related concepts needed in subsequent computer courses. Applications of these concepts are given. *Prerequisites:* 41.261 and 41.102 or 41.222.

41.460 INTRODUCTION TO NUMERICAL METHODS (c 01.00) Introduction to numerical algorithms fundamental to scientific computation. Includes elementary discussion of error, solution of polynomial equations and solution of systems of algebraic equations. *Prerequisites:* 41.261 and 41.102 or 41.222.

41.461 MATHEMATICAL PRINCIPLES OF COMPUTING (c 01.00) Introduction to the representation and properties of finite state machines and Turing machines. Topics include regular expressions, universal machines, and elementary recursive function theory. *Prerequisite:* 41.102 or 41.222 and 41.261.

Graduate and Advanced Undergraduate Courses

41.530 ORGANIZATION OF COMPUTER FILES (s 03.00) Provides comprehensive treatment of techniques of file organization and management for timesharing and multiprogramming environments. Applications of these techniques to representative problems will be treated. *Prerequisite:* 41.360 or 41.580 and 41.564; or permission of instructor.

41.560 NUMERICAL ANALYSIS: BASIC PROBLEMS (s 03.00) Iterative solution of non-linear equations. Special methods for polynomials. Basic theory of polynomial approximation. *Prerequisites:* 41.460 and either 41.321 or 41.322.

41.561 NUMERICAL ANALYSIS: ALGEBRA (s 03.00) Norms of vectors and matrices. Numerical solution of linear systems. Matrix inversion. Computation of eigenvalues and eigenvectors. *Prerequisite:* 41.560.

41.562 NUMERICAL ANALYSIS: ANALYSIS (s 03.00) Numerical quadrature, linear difference equations. Consistency, convergence, and stability. *Prerequisite:* 41.560.

41.563 SELECTED TOPICS IN NUMERICAL ANALYSIS (s 03.00) Special topics are selected from such areas as partial differential equations or numerical approximation.

41.564 SYSTEM PROGRAMMING (s 03.00) Topics in preparation of system programs; buffering, interrupt processing, scatter storage techniques, sorting, parsing, etc. Programming project selected by the student is required. *Prerequisite:* 41.261 and permission of instructor.

41.565 OPERATING SYSTEMS (s 03.00) Overall theory of timesharing and multiprocessing operating systems; procedures, processes, virtual memory, resource allocation, etc. Students will design and implement minicomputer timesharing system. *Prerequisite:* 41.564 or permission of instructor.

41.566 INTRODUCTION TO COMPILERS (s 03.00) Course emphasizes techniques required to design and implement compiler. Topics include lexical analysis, syntactic analysis, and generation of efficient object code. *Prerequisite:* 41.360 and 41.569 or 41.580 or permission of instructor.

41.567 COMPUTER ORGANIZATION (s 03.00) Elements of conventional and unconventional computer organization. Design of computer systems through simulation. Microprogramming. Using system firmware to realize programmed algorithms. Design of conventional processor organization and unconventional processor organization. *Prerequisite:* 41.261 or permission of instructor.

41.568 ARTIFICIAL INTELLIGENCE (s 03.00) Application of computer to tasks that normally are

considered to demand human intelligence: game playing, problem solving, learning, pattern recognition, understanding. *Prerequisite:* 41.360 or 41.580 or permission of instructor.

41.569 PROGRAMMING LANGUAGES (s 03.00) Study of structural characteristics of various higher-level languages such as ALGOL, LISP, and APL; unified treatment of basic language features; and introduction to formal treatment of syntax and semantics. *Prerequisite:* 41.360 or 41.580 or permission of instructor.

41.580 SURVEY OF COMPUTER SCIENCE (s 03.00) Intensive introduction to computer science, including graphs, data structures, and programming techniques. Techniques include backtracking, recursion, and structured programming. *Prerequisite:* 41.260 or equivalent. (Not open to students receiving credit for 41.360.)

41.581 INFORMATION STORAGE AND RETRIEVAL (s 03.00) Study of algorithms for efficient storage and retrieval of information. Comprehensive treatment of data structures, storing and searching with emphasis on sequential searching, tree searching, digital searching, hash coding, and query systems. *Prerequisite:* 41.564 and 41.530 or permission of instructor.

41.582 AUTOMATA THEORY (s 03.00) Automata and their related algebraic structures, properties of regular events and properties of sub-classes of regular events, decomposition of finite automata, Structural and behavioral aspects of finite automata. *Prerequisite:* 41.461 or 41.586 or permission of instructor.

41.583 FORMAL LANGUAGE THEORY (s 03.00) Definition of formal language; finite representation for language; regular, context-free, context sensitive, and type 0 grammars; types of automata, both deterministic and non-deterministic, including pushdown automata, stack automata, linear bounded automata, and Turing Machines; properties of classes of languages; decidability results. *Prerequisite:* 41.582 or permission of instructor.

41.584 COMPUTER GRAPHICS (s 03.00) Course deals with hardware and software necessary to process information in display terminals of computer systems. Students will develop and analyze algorithms involving the use of visual displays. *Prerequisites:* 41.530 and 41.360 or 41.580.

41.585 THEOREM PROVING (s 03.00) The study of the techniques that enable mathematical theorems to be proved by computer. Logic, formal proof schema, theorem-proving by means-end analysis, semantic trees, the resolution principle, the strategy problem, application to problem solving. *Prerequisites:* 41.568 and 41.580 or equivalent.

41.586 MATHEMATICAL TOPICS IN COMPUTER SCIENCE (s 03.00) Selection of mathematical topics relevant to computer science: sets and relations, graphs, semigroups and groups, lattices, Boolean algebra, formal logic, combinatorics; also methods of solving numerical problems. *Prerequisite:* some background in mathematics and computer programming.

Music

CHAIRMAN Vito Mason

FULL-TIME FACULTY

Professor E. S. Hayes, R. Hillyer, J. L. McLain (Emeritus), G. C. Schuetze Jr., G. H. Smith, L. Ultan

Associate Professor A. Mandel, V. E. Mason, C. Crowder, E. Vrenios

Assistant Professor J. W. Boggs, P. H. Patrick

Instructor S. Neff

FIELDS OF STUDY History and literature, musicology, theory, composition, music education, applied music (performance).

Undergraduate Degree Programs

Bachelor of Arts, Bachelor of Music,
Bachelor of Music Education

MAJORS IN MUSIC, MUSIC EDUCATION

ADMISSION TO THE MAJORS A student is admitted only after a one year probationary period. During the year of probation required of all new students, musical ability in the area of performance

and the field of music theory must be demonstrated. A C (2.00 on a 4.00 scale) overall average is required and a B (3.00) average in the major field.

The B.A. degree program is not recommended for students planning to do graduate work in music.

COMPOSITION AND READING REQUIREMENT See "Undergraduate Degree Requirements" in this publication.

LANGUAGE REQUIREMENT See opening section under "College of Arts and Sciences in this publication."

DEPARTMENTAL REQUIREMENTS

Major Courses 43.104 Theory I; 43.105 Theory II; 43.204 Theory III; 43.205 Theory IV; 43.300 History of Music I; 43.301 History of Music II; *43.302 Ear Training and Sight Reading; 43.304 Theory V; 43.305 Theory VI; *43.306 Conducting I; *43.307 Conducting II; *43.311 Orchestration; *43.312 Keyboard Harmony I; *43.313 Keyboard Harmony II; and Applied Music until completion of Senior Recital.

Related Courses All majors must complete a minimum of three courses of additional work in one of the following fields of specialization: (1) music history and literature; (2) music theory (fugue and two theory electives); (3) composition (fugue and one year of composition); (4) music education (instrumental or vocal, and limited to B.Mus.Ed. candidates) consisting of: 43.140 Introduction to Music Education; 43.363 General Music in the Secondary Schools; 21.300 Foundations of Education; 21.320 Psychology of Education; 21.446 Elementary and/or Secondary Student Teaching (must be elected for three or four course units).

Music Education majors are to select either of the following tracks or emphases: (1) vocal emphasis: 43.361 General Music in the Elementary School (K–sixth grades certification); 43.362 Vocal Music in the Secondary School (seventh–twelfth grades certification; K–twelfth grades certification must take both courses); (2) instrumental emphasis: 43.360 Instrumental Music in Elementary and Secondary Schools (prerequisites: 43.150 and 43.140); 43.150 Class Instrumental Study (all four areas must be covered—brass, woodwinds, percussion, strings—prior to Student Teaching).

Performance: 43.550 Pedagogy I and 43.551 Pedagogy II, and a minimum of one course of Applied Music at the 44.434 level are required of all students specializing in performance.

RELATED TOOL COURSES Private instrumental or vocal study in this department throughout the undergraduate program until completion of the Senior Recital—normally eight semesters. (B.A. candidates are required to have at least four semesters of private instrumental or vocal study.)

OTHER REQUIREMENTS A student majoring in music is required to:

(1) Participate in a faculty-conducted ensemble, related to his performance area where possible, for a minimum of one ensemble for each semester that he is in full-time attendance here (four semesters for B.A. candidate; for a part-time student one semester of ensemble for each four courses completed on campus). At least one-half of the minimum requirement must be participation in the University Chorale, Orchestra, or Symphonic Wind Ensemble.

(2) Present one-half of a senior recital program if a B.Mus. or B.Mus.Ed. candidate. A performance major presents a junior half and a full senior recital program. No recital required for B.A. degree. Composition majors must include an approved original composition for their instrument in their recital.

(3) Pass a departmental Senior Comprehensive Examination in music history and theory normally during his final year of study.

Music Education majors with the instrumental emphasis must be able to demonstrate major-level proficiency on an orchestral instrument whether or not they use that instrument to satisfy their Senior Recital requirement.

Music Education majors with the vocal emphasis must declare a major instrument—either voice, guitar, or keyboard—and elect a minimum of five semesters in that major performance area; they must also declare a minor instrument—either voice or keyboard—and elect a minimum of three semesters in that minor performance area. Guitar majors must elect voice as their minor instrument. Students must be registered for their major applied area during the semester in which they do their Senior Recital.

Vocal emphasis Music Education majors may elect to be certified K–sixth grades, seventh–twelfth grades, K–twelfth grades; instrumental emphasis Music Education majors are to be certified K–twelfth grades only.

* Not required for the B.A. in Music.

Student teachers in music normally start their assignments at the commencement of the public school calendar and terminate their assignment at the end of the University semester.

ELECTIVES To complete a minimum of thirty-two course units.

Graduate Degree Programs

Candidates for graduate degrees in all academic units must meet the requirements set forth in the University Minimum Standards for Graduate Studies. The requirements appearing below are those of this department and do not relieve degree candidates from compliance with the minimum standards.

MASTER OF ARTS

ADMISSION For possible graduate deficiencies, consult the undergraduate departmental requirements. Graduate deficiencies may be made up by appropriate course work or by waiver examination.

Four semesters of harmony and of ear training, and one semester each of form and analysis, sixteenth century counterpoint, and eighteenth century counterpoint shall be considered the equivalent of Theory I-VI. Courses no longer offered by the department (e.g., sixteenth century counterpoint) may be made up as undergraduate reading courses or by waiver examination.

All students are required to take the departmental Senior Comprehensive Examination in music history and theory (Graduate Counseling Examination) either before or during their first semester of graduate work. The results are intended for counseling purposes only.

Students wishing to specialize in performance are required to audition, either in person or by tape recording, prior to admission. The graduate degree in performance is offered in all undergraduate performance areas, with the exception of guitar.

Students wishing to specialize in composition must submit a portfolio of at least five original compositions, representing at least three different types of works, prior to admission.

Students wishing to specialize in Music Education are required to have completed before admission to graduate study: (1) nine hours in education, and (2) one semester of teaching experience, or the equivalent in practice teaching.

Students wishing to specialize in Music Education with Kodaly emphasis must be interviewed by both the University and representatives of the Kodaly Institute before acceptance can be finalized.

FIELDS OF SPECIALIZATION COURSE REQUIREMENTS

Composition Minimum of thirty hours, including: 43.507 Studies in Music Theory: Fugue; 43.703 Advanced Composition; 43.797 Master's Thesis Seminar, the requirement being a large composition rather than a thesis. Plus a minimum of nine hours of additional graduate level theory and composition courses.

Music History (Musicology) Minimum of thirty hours, including: 43.510 Introduction to Musicology; 43.797 Master's Thesis Seminar. Plus a minimum of twelve hours additional graduate level music history and literature courses.

Performance Minimum of thirty hours in either program (1) or (2) (non-thesis option): (1) 43.510 Introduction to Musicology; 43.550 Pedagogy I; 43.551 Pedagogy II; 43.797 Master's Thesis Seminar; plus four hours Applied Music at the 44.791 and 44.792 level; (2) 43.550 Pedagogy I; 43.551 Pedagogy II; 43.555 Chamber Ensembles 44.791 or 44.792 Applied Music Study; 43.798 Research Performance; work will include intensive private instrumental or vocal study and research in the lecture-topic area. May not be taken concurrently with Applied Music classes before the M.A. recital requirement has been completed.

Electives to include a minimum of twelve hours of graduate level academic courses in the Department of Music.

Theory Minimum of thirty hours, including 43.507 Studies in Music Theory: Fugue; 43.510 Introduction to Musicology; 43.797 Master's Thesis Seminar. Plus a minimum of nine hours of additional graduate level theory courses.

Music Education Minimum of thirty hours, including: 43.797 Master's Thesis Seminar; 21.522 Evaluation of Student Progress; 43.540 Introduction to Graduate Study in Music Education; either 43.542 The Psychology of Music, 43.561 Music Education Seminar, or 43.740 Supervision and Administration of Music Education. Electives to include twelve hours of graduate level courses in the Department of Music.

Music Education with Kodaly Emphasis This program requires fifty percent of the graduate degree work to be done at the Kodaly Institute according to the following options: (1) One academic year at the Kodaly Institute, Wellesley, Massachusetts. This is to be preceded by a four week summer course at the institute. (2) One academic year of work at the Kodaly Institute, Hungary. This is to be preceded by a four week summer course at the institute in Massachusetts. Proficiency in the Hungarian language required. (3) Three summers of work done at any combination of the above two institutes; all at one is also acceptable.

The work done at the Kodaly Institute will be accepted as fifty percent of the graduate program. This work will be considered valid transfer credit not to exceed fifteen semester hours. The program is an exception to the University's residency requirement. The balance of the work required will be taken at The American University and will consist of the following: 43.540 Introduction to Graduate Study in Music Education; two electives at the graduate level in the Department of Music; 43.797 Master's Thesis Seminar.

Students who select the Kodaly emphasis may not transfer credit from any other institution toward satisfying the semester hour requirements of this program. All degree credit work (thirty hours) must be completed at the Kodaly Institute and The American University as defined above.

ELECTIVES Electives may include any other graduate level courses in the Department of Music. Electives to complete thirty hours may *not* include: (1) More than six hours of non-music courses; registration in such courses for credit toward the degree must be approved by the chairman of the Music Department. (2) More than four hours of Applied Music (students specializing in performance program may not include more than six total hours of Applied Music, i.e., two hours beyond the four that are required.) (3) More than four hours of 43.555 Chamber Ensembles.

COMPREHENSIVE EXAMINATIONS One comprehensive examination in music history and theory, and one examination in the student's field of specialization. Comprehensive examinations may be taken *during or after* the semester in which the student will complete twenty-four hours of course work.

Students in Music Education (either program) who enter with undergraduate deficiencies will be expected to clear those prior to taking comprehensive examinations.

The major field comprehensives for those in the Kodaly program will have an emphasis on Kodaly materials and techniques but will also require a respectable knowledge of general prevailing practices and an historical perspective in the field of music education.

Comprehensive Examination Fields 43.000 General Music History and Theory (required of all students); 43.001 Composition or Theory; 43.002 Music History (Musicology); 43.005 Music Education (Instrumental); 43.006 Music Education (Vocal); 43.007 Music Education (General Music); 43.010 Music Education—Kodaly; 43.008 Master's Recital.

OTHER REQUIREMENTS Proficiency in German, French, or an approved substitute is required of students writing a thesis (i.e., specialists in music history, performance, theory and Music Education majors who elect 43.797). Statistics, or the equivalent, may be required, as determined by the Music Education Advisor, in place of a language proficiency for students specializing in music education.

Students majoring in performance are required to present a minimum of four appearances in departmental student recitals; at least one must be part of an ensemble performance, in addition to a full Master's recital program. Those in performance program (2) must present a lecture-recital in addition to and after completion of the M.A. Recital (43.008).

All graduate students in the department will be expected to assist performing ensembles for public performances should their services be required.

Courses of Instruction

Undergraduate Courses

HISTORY AND LITERATURE

43.100 MUSIC THEORY FOR NON-MUSIC MAJORS (c 01.00) Development of listening techniques based on understanding of the functional role of the elements in the organization of music.

43.101 MUSIC APPRECIATION (c 01.00) Chronological study of stylistic periods of music related to thought of our age. Emphasis placed on listening to representative works by major composers.

43.102 SELECTED TOPICS (c 01.00) Study of pre-selected area such as orchestral music, chamber music, opera, American music, folk music, twentieth century music, etc. May be repeated for credit if no duplication of topic is involved. *Prerequisite:* 43.100.

43.103 THE EVOLUTION OF JAZZ AND ROCK (c 01.00) Cultural sources and growth of divergent stylistic characteristics of jazz and rock through past one hundred years.

43.106 AFRICAN MUSIC (c 01.00) Music of several major areas of Africa (including such areas of Uganda, Ghana, Nigeria, Kenya, and the Congo) and subsequent influence on Black American music.

43.300 HISTORY OF MUSIC I (c 01.00) Music in Western civilization from ancient times to seventeenth century, including brief survey of primitive and oriental music. Illustrated with slides and recordings. *Prerequisite:* one year (preferably two) of music theory, or permission of instructor.

43.301 HISTORY OF MUSIC II (c 01.00) Music in Western civilization from eighteenth century to present. Illustrated with slides and recordings. *Prerequisite:* 43.300 or permission of instructor.

43.390 INDEPENDENT READING COURSE IN MUSIC (c 00.25 through 02.00)*

43.490 INDEPENDENT STUDY PROJECT IN MUSIC (c 00.25 through 02.00)*

THEORY

43.104 THEORY I: INTRODUCTION TO MUSIC THEORY (c 01.00) Comprehensive study of scales, modes, rhythm, instruments, and notational practices from Middle Ages to present. Basic general concepts of rhythm, melody, harmony, counterpoint, and form studies in context of developing ear and sight reading proficiency. *Prerequisite:* ability to read music.

43.105 THEORY II: THE MIDDLE AGES (c 01.00) Line, rhythm, notation; form and vertical relationships as practiced in Medieval music. Literature and style analysis, composition, sight reading and aural dictation. *Prerequisite:* 43.104.

43.204 Theory III: THE RENAISSANCE (c 01.00) Study of fifteenth and sixteenth century style and theory by analysis, composition, sight reading and aural dictation. *Prerequisite:* 43.105.

43.205 THEORY IV: THE BAROQUE (c 01.00) Baroque style and theory, by analysis, composition, sight reading and aural dictation. *Prerequisite:* 43.204.

43.302 EAR TRAINING AND SIGHT READING (c 01.00) Intensive course in aural development and sight reading proficiency which may be extended over a three year period. Students may complete course requirements as they individually achieve the required levels of proficiency. *Prerequisite:* open only to music majors.

43.304 THEORY V: THE CLASSICAL AND ROMANTIC PERIODS (c 01.00) Music of classic and romantic periods studied by analysis, composition, sight reading and aural dictation. *Prerequisite:* 43.205.

43.305 THEORY VI: THE TWENTIETH CENTURY (c 01.00) Diverse styles and theoretical attitudes of twentieth century, by analysis, composition, sight reading and aural dictation. *Prerequisite:* 43.304.

43.306 CONDUCTING I (c 00.50) Practical study of basic conducting technique; emphasis on choral conducting. *Prerequisite:* 43.205 or permission of instructor.

43.307 CONDUCTING II (c 00.50) Orchestral and band conducting; score reading and interpretation. *Prerequisite:* 43.306.

43.311 ORCHESTRATION (c 00.50) Scoring for various chamber ensembles and full orchestra. Analysis of orchestration practice of composers from classic era to present. *Prerequisite:* 43.205 or permission of instructor.

43.312 KEYBOARD HARMONY I (c 00.50) Keyboard practice of chord progressions in four parts; cadence patterns; simple melodic harmonization; harmonic sequences. *Prerequisite:* 43.205 or permission of instructor.

43.313 KEYBOARD HARMONY II (c 00.50) Continuation of 43.312; modulation and transposition; special projects for individual needs. *Prerequisite:* 43.312.

43.315 COMPOSITION I (c 01.00) Individually supervised practice in writing short compositions in specified small forms. *Prerequisite:* 43.205.

*See description under "General Curriculum Information" in this publication.

43.316 COMPOSITION II (c 01.00) Continuation of 43.315; assignments adapted to individual needs and talents of students. *Prerequisite:* 43.315.

MUSIC EDUCATION

43.140 INTRODUCTION TO MUSIC EDUCATION (c 00.50) Philosophical, psychological, and sociological bases of music education, with emphasis on music in elementary and secondary schools. Examination of current practice through observation trips to area schools. *Prerequisite:* interest in music education.

43.353 MUSIC FOR ELEMENTARY SCHOOL TEACHERS (c 01.00) Technical background and methods of presentation for elementary classroom teacher to use in teaching music. Primarily for elementary education majors; students majoring in music may not include this course as credit toward degree.

43.360 INSTRUMENTAL MUSIC IN THE ELEMENTARY AND SECONDARY SCHOOL (c 01.00) Practical application of theoretical concepts in planning and presentation of instrumental music. Examination and development of materials, classroom management and control. Observation trips to area schools. *Prerequisite:* 43.140.

43.361 GENERAL MUSIC IN THE ELEMENTARY SCHOOL (c 01.00) Study and development of materials and methods used by elementary classroom music specialist. Observation in area schools. *Prerequisite:* 43.140.

43.362 VOCAL MUSIC IN THE SECONDARY SCHOOL (c 01.00) Vocal and choral techniques in junior and senior high school. Study and development of methods and materials. Rehearsal management and organization of choral music program. *Prerequisite:* 43.140.

43.363 GENERAL MUSIC IN THE SECONDARY SCHOOLS (c 00.50) Teaching music to adolescent in junior and senior high school general music class. *Prerequisite:* 43.140.

APPLIED MUSIC

43.113 CLASS GUITAR I (c 00.25) Beginning study of classic guitar in preparation for private study.

43.114 CLASS GUITAR II (c 00.25) Continuation of Class Guitar I. *Prerequisite:* 43.113 or audition.

43.115 CLASS PIANO I (c 00.25) Beginning piano study directed toward satisfaction of department's minimal piano requirements.

43.116 CLASS PIANO II (c 00.25) Continuation of basic piano skills begun in Class Piano I, necessary for entrance into 43.312 Keyboard Harmony, and private piano study. *Prerequisite:* 43.115.

43.117 CLASS VOICE I (c 00.25) Beginning voice study directed toward satisfaction of minimal voice requirements in music education.

43.118 CLASS VOICE II (c 00.25) Application of basic principles of correct use of singing voice to the study of good song literature. *Prerequisite:* 43.117

43.150 CLASS INSTRUMENTAL STUDY (c 00.25) Beginning study of an announced area (e.g. brass, woodwinds, strings, or percussion) and pre-selected instrument within that area. Fundamentals of playing, principles of pedagogy, and methods and materials. May be repeated for credit on another instrument. *Prerequisite:* permission of instructor.

43.152 UNIVERSITY CHORALE (c 00.25) Prepares and presents major works of choral literature. *Prerequisite:* audition.

43.153 UNIVERSITY SINGERS (c 00.50) Small, highly select traveling choral ensemble which presents both sacred and secular programs. *Prerequisite:* audition.

43.154 UNIVERSITY ORCHESTRA (c 00.25) Concerts, sight-reading, study of selected compositions. Open to all students, faculty, and staff. *Prerequisite:* permission of instructor.

43.155 INSTRUMENTAL ENSEMBLES (c 00.25) String, mixed, and wind ensembles, and jazz workshop. Open to students, faculty, and staff. *Prerequisite:* Permission of instructor.

43.156 SYMPHONIC WIND ENSEMBLE (c 00.25) Symphonic band which presents several concerts during the year. Tour is occasionally included in the schedule. *Prerequisite:* audition and permission of instructor.

APPLIED MUSIC (Private Study)

All undergraduate courses in Applied Music may be repeated for credit. Fees are in addition to tuition. For regulation regarding Applied Music (levels of achievement, juries, attendance at recitals, etc.), see the departmental *Applied Music Handbook*. Enrollment in all courses listed under applied music must be approved by the department. Student is required to show written permission at registration.

44.121 PRIVATE INSTRUMENTAL OR VOCAL STUDY (c 00.25) Limited to students not majoring in music or music majors on secondary instruments. *Prerequisite:* 43.114 for guitar, 43.116 for piano, 43.118 for voice, 43.149 for brass instruments, 43.150 for bowed string instruments, 43.151 for woodwind instruments; or the equivalent. Fee, \$70.

44.122 PRIVATE INSTRUMENTAL OR VOCAL STUDY (c 00.50) Limited to students not majoring in music. *Prerequisite:* see 44.121. Fee, \$140.

44.131 PRIVATE INSTRUMENTAL OR VOCAL STUDY (c 00.25) Limited to students majoring in music. *Prerequisite:* see 44.121. Fee, \$45.

44.132 PRIVATE INSTRUMENTAL OR VOCAL STUDY (c 00.50) Limited to students majoring in music. *Prerequisite:* see 44.121. Fee, \$85.

44.334 PRIVATE INSTRUMENTAL OR VOCAL STUDY (c 01.00) Enrollment limited. Recital required. *Prerequisite:* audition and permission of department chairman. Fee, \$85.

44.434 PRIVATE INSTRUMENTAL OR VOCAL STUDY (c 01.00) Enrollment limited. Recital required. *Prerequisite:* audition and permission of department chairman. Fee, \$85.

Graduate and Advanced Undergraduate Courses

HISTORY AND LITERATURE

43.500 MUSIC OF THE BAROQUE ERA (s 03.00) Advanced study of European music of the seventeenth and early eighteenth centuries. Comprehensive coverage of styles and forms. Illustrated with slides and recordings. *Prerequisite:* 43.300-.301 or equivalent.

43.501 MUSIC OF THE CLASSIC ERA (s 03.00) Growth of new idioms and forms from the early eighteenth to the early nineteenth century. Illustrated with slides and recordings. *Prerequisite:* 43.301 or equivalent.

43.502 MUSIC OF THE ROMANTIC PERIOD (s 03.00) Historical and cultural background; intensive study of the composers and works of the period; emphasis on individual styles; nationalism, program music. *Prerequisite:* 43.301.

43.503 MUSIC OF TWENTIETH CENTURY (s 03.00) Chronological survey of musical styles and ideas from 1900 to the present, with emphasis on a few selected composers. Illustrated with slides and recordings. *Prerequisite:* 43.301 or equivalent.

43.504 STUDIES IN MUSIC LITERATURE (s 03.00) Survey of a pre-selected area, such as chamber music, orchestral music, keyboard music, choral music, etc. May be repeated for credit if no content duplication is involved. *Prerequisite:* 43.301 or concurrent registration.

43.505 STUDIES IN MUSIC HISTORY (s 03.00) History of a pre-selected area, such as opera, music theory, musical instruments, etc. May be repeated for credit if no content duplication is involved. *Prerequisite:* 43.301 or concurrent registration.

43.510 INTRODUCTION TO MUSICOLOGY (s 03.00) Methods and tools of research. Class project, oral report, written paper. Transcription of vocal notations and instrumental tablatures. Survey of scholarly editions, periodicals, and reference works in the major European languages. *Prerequisite:* 43.300-.301 or equivalent.

43.555 CHAMBER ENSEMBLES (s 01.00) Performance in particular areas of music literature by small, select groups, including following: (a) *Collegium Musicum*. Vocal and instrumental sections. Emphasis on Baroque, Renaissance, and Medieval music, using departmental collection of lutes, viols, recorders, cromornes, cornetti, sackbuts, harpsichords, etc. May be taken four times for credit by graduate students, who are expected to edit and/or direct music as well as perform. (b) *Operetta Workshop*. Practicum workshop of operetta and musical-comedy scenes, culminating in one or more performances of music covered during semester. (c) *String Ensembles*. Advanced string chamber-music ensembles, preparing for performance of varied literature. *Prerequisite* for all ensembles: audition.

43.590 INDEPENDENT READING COURSE IN MUSIC (s 01.00 through 06.00)***THEORY**

43.507 STUDIES IN MUSIC THEORY (s 03.00) Studies in depth in specific areas of theoretical concern, such as fugue; electronic music; chance vs. control as compositional principles; and techniques of variation. May be repeated for credit if no content duplication involved. *Prerequisite:* 43.305.

43.515 ADVANCED CONDUCTING (s 03.00) Conductor's role in preparation and presentation of more complex masterworks. Students will be expected to participate in laboratory conducting experiences. May be repeated for credit. *Prerequisites:* 43.306 and 43.307 or the equivalent.

MUSIC EDUCATION

43.540 INTRODUCTION TO GRADUATE STUDY IN MUSIC EDUCATION (s 03.00) Research techniques and materials designed to acquaint the practicing music educator with useful findings and applicable methods. Bibliography and library resources.

43.542 THE PSYCHOLOGY OF MUSIC (s 03.00) Insight into man's responses to music and music as art object via investigation of psychological, philosophical, and acoustical data. *Prerequisite:* permission of the instructor.

43.561 MUSIC EDUCATION SEMINAR (Vocal, General, Instrumental) (s 03.00) Advanced study of a specific, pre-selected area in music education. *Prerequisite:* 43.360 or 43.361-.362, as applicable.

APPLIED MUSIC

44.531 PRIVATE INSTRUMENTAL OR VOCAL STUDY (s 01.00) Directed at non-performance major. Admission predicated on completion of second year of undergraduate applied music major requirements and audition. Fee: \$70.

44.532 PRIVATE INSTRUMENTAL OR VOCAL STUDY (s 02.00) Directed at non-performance major. Admission predicated on completion of the second year of undergraduate applied music major requirements and audition. Fee: \$140.

44.534 STUDIO ACCOMPANYING (s 02.00) Provides piano student practical studio experience with singers and instrumentalists; includes two supervised hours (lessons) and four preparation hours per week. Required of all piano performance majors. May be repeated indefinitely for credit. *Prerequisite:* audition consisting of sight-reading and performance of two songs handed out a week in advance of audition.

43.550 PEDAGOGY I (s 02.00) Seminar to explore concepts of vocal and instrumental performance and their application to teaching in private studio. *Prerequisite:* permission of instructor.

43.551 PEDAGOGY II (s 02.00) Survey of literature and teaching of instrumental and vocal techniques.

43.552 INTERNSHIP IN MUSIC (s 03.00) Practical professional experience for selected students who work with cooperating agency directly in their professional field under faculty guidance and supervision. *Prerequisite:* permission of department chairman.

Graduate Courses**HISTORY AND LITERATURE**

43.680 MEDIEVAL MUSIC (s 03.00) Advanced study of European music from the early Christian era to the beginning of the fifteenth century. Emphasis on stylistic and notational problems, primary sources, bibliography. Illustrated with slides and recordings. Written paper, taped listening assignments. *Prerequisite:* 43.300 or equivalent.

43.690 INDEPENDENT STUDY PROJECT IN MUSIC (s 01.00 through 06.00)*

43.701 RENAISSANCE MUSIC (s 03.00) Comprehensive survey of European music of the fifteenth and sixteenth centuries. Emphasis on stylistic innovations, primary sources, bibliography. *Prerequisite:* 43.300 or equivalent.

43.702 MUSICOLOGY SEMINAR (s 03.00) Advanced study in pre-selected areas, such as perform-

* See description under "General Curriculum Information" in this publication.

ance practices, early notation, the Italian madrigal, etc. May be repeated for credit if no duplication involved. *Prerequisite:* 43.510 or equivalent.

43.797 MASTER'S THESIS SEMINAR (s 03.00 through 06.00) *Prerequisite:* 43.703 for composition majors; 43.540 for music education majors (instrumental or vocal); 43.510 for all other students; plus permission of department chairman.

43.798 RESEARCH PERFORMANCE: LECTURE-RECITAL (s 03.00 through 06.00) Research topics for M.A. candidates in performance who must present a lecture-recital. Work includes intensive private instrumental or vocal study and research in lecture topic area. May not be taken concurrently with applied music classes or before the M.A. recital requirement has been completed. *Prerequisite:* permission of department chairman. *Fee:* \$100 in addition to registration cost for each three semester hours.

THEORY

43.700 ANALYTICAL STUDIES (s 03.00) Analysis of specified works, composers, styles, idioms, forms. May be repeated for credit. *Prerequisite:* 43.305.

43.703 ADVANCED COMPOSITION (s 03.00) Guidance in writing large forms and in experimental idioms. Assignments adapted to individual needs, interests, and talents. May be repeated for credit. *Prerequisite:* 43.316 or permission of instructor.

43.704 TWENTIETH-CENTURY COUNTERPOINT (s 03.00) Study of important contrapuntal styles of the past seventy years through analysis. Practical creative writing problems in each style studied. *Prerequisite:* 43.305.

MUSIC EDUCATION

43.740 SUPERVISION AND ADMINISTRATION OF MUSIC EDUCATION (s 03.00) Nature and scope of supervision, supervisory relationships, procedures and techniques; organization and improvement of music curricula, administration of music programs and development of evaluative criteria.

APPLIED MUSIC

44.791 PRIVATE INSTRUMENTAL OR VOCAL STUDY (s 01.00) May be repeated up to six hours by a master's degree candidate in performance. Others limited to four hours. *Prerequisites:* 44.432 or equivalent and written permission of the department. *Fee:* \$70.

44.792 PRIVATE INSTRUMENTAL OR VOCAL STUDY (s 02.00) May be repeated up to six hours by master's degree candidate in performance. Others limited to four hours. *Prerequisites:* 44.432 or equivalent and written permission from the department. *Fee:* \$140.

Performing Arts

CHAIRMAN Charles F. Crowder

FULL-TIME FACULTY

Professor G. Smith

Associate Professor K. Baker, C. Crowder, N. Prevots, H. Voss

Assistant Professor C. B. Andrews, B. Baranovic, E. Daley, J. Hindman, V. Morris

FIELDS OF STUDY Theatre, dance, performing arts, arts administration. The department plans and operates the theatre and dance portions of the summer American University Academy for the Performing Arts.

Undergraduate Degree Program

Bachelor of Arts, Bachelor of Science

MAJOR IN PERFORMING ARTS

ADMISSION TO THE PROGRAM AND CONTINUATION The department counsels freshmen and transfer students. Students are formally admitted to the major when they present a 2.00 grade

point average. Continuation in the major is determined by a semester-by-semester review of each student's progress and by his or her counselor and the department faculty.

COMPOSITION AND READING REQUIREMENT See "Undergraduate Degree Requirements" in this publication.

LANGUAGE REQUIREMENT See opening section under "College of Arts and Sciences" in this publication.

MAJOR FIELD REQUIREMENTS Major field requirements are based on the analysis of individual talent (on entering), individual needs toward development, and the continuing counseling of the Performing Arts faculty.

RELATED FIELD REQUIREMENT No requirement.

ELECTIVES To complete a minimum of thirty-two course units.

Performing Arts majors are expected to participate actively in the productions of the department. Courses selected outside the department are determined by the development of the individual talent in counsel with the faculty.

Graduate Degree Program

Candidates for graduate degrees in all academic units must meet the requirements set forth in the University Minimum Standards for Graduate Studies. The requirements appearing below are those of this department and do not relieve degree candidates from compliance with the minimum standards.

Master of Arts

MAJOR IN PERFORMING ARTS

ADMISSION REQUIREMENTS Admission to the graduate program requires a bachelor's degree or its equivalent.

(1) In the case of those with a bachelor's degree, a minimum of eight to ten courses (twenty-four to thirty semester hours) in undergraduate theatre, dance, or music, one-third of which in advanced work, is acceptable. In this relevant course work, a grade point average of 2.00 on a 3.00 scale, or 3.00 on a 4.00 scale is required. A personal interview is strongly recommended and may be requested by the department.

(2) In the case of equivalent training, it is understood to be four to six years-experience in a professional company or organization. Students entering the program with this background will be asked for an audition or interview at which time any deficiencies will be determined. Students accepted will be placed on provisional status until the deficiencies are removed. A 3.50 grade point average on a 4.00 scale is required of provisional status students in the first twelve hours of departmental course work.

AREAS OF CONCENTRATION M.A. candidates in performing arts may concentrate in the tracks of performance, arts administration, directing, playwriting, design and technical production, choreography, history, and criticism, and in such special programs as may be developed with the student and approved by the Performing Arts Graduate Study Committee.

COURSE WORK A total of thirty-six semester hours of graduate level work will be required (forty-five in arts administration). Six semester hours must be devoted to graduate research. All six may be given to the thesis or non-thesis option production, however, either of these may be taken for three semester hours with the other three taken in research work directly related to, and supporting, the thesis or non-thesis option production. The non-thesis option production may be in the focus of the graduate work, i.e., directing, technical production, choreography, etc.

Course work will be determined by the student and the counselor and will be based on the development of the candidate's talent in his area of work. Dance and theatre track students will be required to attend one summer of The American University Academy for the Performing Arts (residence credit; see Academy description immediately following this department).

A minimum of three interdisciplinary courses in the departmental curriculum will be required of all graduate students.

COMPREHENSIVE EXAMINATION Candidates for the M.A. degree in Performing Arts will be required to take one comprehensive examination which includes a written examination and a

follow-up oral examination. The examination will be individual in character and will be devised by the student's counselor in coordination with the faculty of the department. The examination will be read (and heard, on follow-up) by the members of the faculty constructing the examination.

Courses of Instruction

Undergraduate Courses

Information concerning additional summer dance and theatre courses is available through the Department of Performing Arts.

67.100 INTRODUCTION TO THE PERFORMING ARTS: DANCE (c 01.00) Designed for student in any discipline wishing acquaintance with dance as art form (ballet and modern). No previous knowledge of dance is required.

67.101 INTRODUCTION TO PERFORMING ARTS: THEATRE (c 01.00) Designed to give any student general overview of performing and theatrical arts while at the same time investigating the role of theatre in society.

67.102 THEATRE: THE INTERDISCIPLINARY ART (c 01.00) Interdisciplinary course structured to explore arts, humanities, social sciences, and physical sciences as viewed through and as utilized by theatrical art. (Freshman Module course.)

67.116 STAGE MAKE-UP (c 00.25) Introduction to stage make-up. Basics of stage make-up, make-up material, make-up lists, color charts, facial anatomy, corrective make-up.

67.130 MODERN DANCE I (c 00.50) Development of the ability to communicate through movement.

67.140 BEGINNING BALLET (c 00.50) Development of technical skills in classical ballet vocabulary.

67.170 ORAL INTERPRETATION (c 01.00) Analysis, interpretation, and practice in expressive reading of literature to develop ability in sharing literature with an audience.

67.200 INDIVIDUAL CREATIVE EXPRESSION (c 01.00) Investigation and exploration of the innate creative capacities of individuals and attempt to stimulate and broaden each student's creative capabilities. Work will include improvisation, mimetic expression, theatre games and imagination expansion.

67.210 INTERMEDIATE BALLET (c 00.50) Development of technical skills and performance ability in classical ballet vocabulary. *Prerequisite:* 67.140 or permission of instructor.

67.215 COSTUME DESIGN FOR PERFORMING ARTS (c 01.00) Introduction to many-faceted problems of designing costumes for the human form in context of appearing on stage; investigation of historical and contemporary traditions.

67.216 METHODS OF TEACHING DANCE (c 00.50) Development of skills, techniques, and methods of teaching dance.

67.230 MODERN DANCE II (c 00.50) Continuation of 67.130. *Prerequisite:* 67.130 or permission of instructor. Sections for majors and non-majors.

67.300, 67.301 THEATRE: PERFORMANCE TECHNIQUES I AND II (c 01.00) (c 01.00) Planned from performance point of view. Integrates works and talents of actor, director, and writer and introduces student to the total theatrical experience. May repeat for credit.

67.303, 67.304 THEATRE: PRODUCTION TECHNIQUES I AND II (c 01.00) (c 00.25) Designed to provide exposure to and exploration of all visual, auditory and management phases of theatre and performing arts. Areas covered include all phases of theatrical design and construction, management, publicity/public relations and the visual arts. May repeat 67.304 four times.

67.310 WORLD THEATRE I (c 01.00) Historical pattern of theatre as art form and social function from its earliest appearance through the Renaissance.

67.311 WORLD THEATRE II (c 01.00) Historical pattern of theater as art form and social function from Baroque to present. *Prerequisite:* 67.310.

67.320 MODERN DANCE III (c 01.00) Continuation of 67.230. Meets jointly with 67.620. *Prerequisite:* 67.230 or permission of instructor.

- 67.322 STAGE MOVEMENT (c 01.00)** Analysis and understanding of the body movement as actor's visual means of communication with an audience.
- 67.325 MUSIC FOR DANCE AND THEATRE (c 01.00)** Development of an awareness of rhythms and understanding basic elements of time; application to dance composition and accompaniment.
- 67.326 HISTORY AND PHILOSOPHY OF DANCE (c 01.00)** Understanding and appreciation of the contribution of dance to cultural development of mankind. Meets jointly with 67.626.
- 67.335 LIGHTING DESIGN (c 01.00)** Lighting instruments, control boards and the use of lighting as an integral part of design for the performing arts. *Prerequisite:* permission of instructor.
- 67.370 SPEECH AND VOICE FOR THE THEATRE (c 00.50)** Intended primarily for theatre majors concerned with development of effective techniques of voice and diction.
- 67.390 INDEPENDENT READING COURSE IN PERFORMING ARTS (c 00.25 through 02.00)***
- 67.394 MODERN AMERICAN THEATRE AND DRAMA (c 01.00)** American drama from O'Neill to present.
- 67.397 SELECTED TOPICS: SEMESTER THEME PROJECTS (c 01.00)** Open to students of any discipline seeking innovative approach for investigation of the arts in context of social, economic, and political milieu of selected periods of history, e.g., America in the '50's and '60's, Germany between the Wars, etc. Historical period for investigation changed each semester and major departmental stage production selected from works of the period. Meets jointly with 67.697.
- 67.400 ADVANCED METHODS OF TEACHING MODERN DANCE (c 01.00)** Understanding value of dance education and development of approaches to teaching dance at various age levels. Meets jointly with 67.600.
- 67.401 COMPOSITION OF DANCE I (c 01.00)** Discovery of a rich movement vocabulary and techniques of choreography. *Prerequisite:* permission of instructor. Meets jointly with 67.601.
- 67.402 COMPOSITION OF DANCE II (c 01.00)** Continuation of 67.401. *Prerequisite:* 67.401 or permission of instructor. Meets jointly with 67.602.
- 67.403 COMPOSITION OF DANCE III (c 01.00)** Continuation of 67.402. Meets jointly with 67.603. *Prerequisite:* 67.402 or permission of instructor.
- 67.421 ADVANCED SCENE DESIGN (c 01.00)** Fundamentals of design for the performing arts: preparation of sketches and drawings based upon the principal styles and periods in performing arts. *Prerequisite:* permission of instructor. Meets jointly with 67.621.
- 67.425 COSTUME DESIGN (c 01.00)** Study of the history and design of theatrical costumes from late sixteenth century to the present. Meets jointly with 67.625.
- 67.430 WORKSHOP IN DANCE PRODUCTION (c 01.00)** Development of techniques and provision of experience in various phases of dance production. Repertory; improvisation. Meets jointly with 67.630. *Prerequisite:* 67.401 or permission of instructor.
- 67.480 SYNTHESIS AND EXPLORATIONS OF ARTISTIC/PROJECTED ELEMENTS (c 01.00)** Explorations of concepts of space, light, color, movement, sound in their elemental interactions as artistic/projective factors. Meets jointly with 67.680. *Prerequisite:* permission of instructor.
- 67.490 INDEPENDENT STUDY PROJECT IN PERFORMING ARTS (c 00.25 through 02.00)***
- 67.494 ROTATING TOPICS IN ACTING/DIRECTING (c 01.00)** Designed for advanced undergraduate and graduate student who wishes to study varying and special problems approached from perspective of director. Investigation of specific problems of performance and emphasis of various approaches to performance material and preparation techniques. Meets jointly with 67.694.

Graduate and Advanced Undergraduate Courses

Information concerning additional summer dance and theatre courses is available through the Department of Performing Arts.

- 67.510 SURVEY OF ARTS MANAGEMENT (s 03.00)** Study of various facets of management in the arts as contracts, logistics, organizations, etc. *Prerequisite:* permission of instructor.

*See description under "General Curriculum Information" in this publication.

67.514 CASE STUDIES IN PERFORMING ARTS MANAGEMENT (s 03.00) Explores in-depth three major areas of arts management: grants and fund-raising, box office and income, and general administration. *Prerequisite:* 67.510 or permission of instructor.

67.516 PLANNING/ANALYSIS IN PERFORMING ARTS MANAGEMENT (s 03.00) Designed to study arts organizations and their structures. Study is divided into four areas of concentration: structure, organization, centers, and councils. *Prerequisite:* 67.510 or permission of instructor.

67.533 ADVANCED DIRECTING (s 03.00) Seminar laboratory course in problems of directing plays for theatre.

67.543 ADVANCED ACTING (s 03.00) Seminar laboratory course dealing with the advanced study of actor's problem with particular emphasis on various theatrical styles.

67.556 HISTORY OF AMERICAN THEATRE (s 03.00) Theatre in America as a cultural force from colonial period to present.

67.560 THE COMMUNITY AND THE ARTS (s 03.00) Designed for student who will be performing outside the concert hall. Students study community situations, community groups, and community programs and nature of the community performance situation.

67.562 ADVANCED PLAYWRITING (s 03.00) Theory and practice of advanced techniques of dramatic writing for theatre.

67.579 SEMINAR IN METHODS OF TEACHING THEATRE (s 03.00) Designed to acquaint the prospective theatre teacher with philosophy, theory, practice and methods of theatre education.

67.590 INDEPENDENT READING COURSE IN PERFORMING ARTS (s 01.00 through 06.00)*

67.591 SEMINAR IN THEATRE (s 03.00) Problems in items of theatrical presentation of theatre history. Topics will be announced semester the course is offered. May be repeated for credit.

Graduate Courses

67.600 ADVANCED METHODS OF TEACHING DANCE (s 03.00) Understanding value of dance education and development of approaches to teaching dance at various age levels. Meets jointly with 67.400.

67.601 COMPOSITION OF DANCE I (s 03.00) Discovery of a rich movement vocabulary and techniques of choreography. Meets jointly with 67.401. *Prerequisite:* permission of instructor.

67.602 COMPOSITION OF DANCE II (s 03.00) Continuation of 67.601. Meets jointly with 67.402. *Prerequisite:* 67.601 or permission of instructor.

67.603 COMPOSITION OF DANCE III (s 03.00) Continuation of 67.602. Meets jointly with 67.403. *Prerequisite:* 67.602 or permission of instructor.

67.610 PROBLEMS IN THEATRICAL DESIGN (s 03.00) Special design problems to meet the interests of individual students in design for drama, ballet and opera.

67.615 RESEARCH SEMINAR IN PERFORMING ARTS (s 03.00) Required seminar of all degree graduate students in theatre program. Study and practice in methods of research and writing. Research problems vary from semester to semester.

67.620 MODERN DANCE III (s 03.00) Continuation of 67.230. Meets jointly with 67.320. *Prerequisite:* 67.230 or permission of instructor.

67.621 ADVANCED SCENE DESIGN (s 03.00) Fundamentals of design for performing arts: preparation of sketches and drawings based upon principal styles and periods in performing arts. Meets jointly with 67.421. *Prerequisite:* permission of instructor.

67.625 ADVANCED COSTUME DESIGN (s 03.00) Study of history and design of theatrical costumes from late sixteenth century to present. Meets jointly with 67.425.

67.626 HISTORY AND PHILOSOPHY OF DANCE (s 03.00) Understanding and appreciation of contribution of dance to cultural development of mankind. Meets jointly with 67.326.

67.630 WORKSHOP IN DANCE PRODUCTION (s 03.00) Development of techniques and the provision

*See description under "General Curriculum Information" in this publication.

of experience in various phases of dance production (repertory, improvisation). Meets jointly with 67.430. *Prerequisite:* permission of instructor.

67.650 SEMINAR IN THEATRE HISTORY (s 03.00) Intensive study of one or more topics in broad range of theatre history through discussion, oral presentation, demonstration and written assignments. *Prerequisite:* permission of instructor.

67.680 SYNTHESIS AND EXPLORATIONS OF ARTISTIC/PROJECTED ELEMENTS (s 03.00) Explorations of concepts of space, light, color, movement, sound in their elemental interactions as artistic/projective factors. Meets jointly with 67.480. *Prerequisite:* permission of instructor.

67.690 INDEPENDENT STUDY PROJECT IN PERFORMING ARTS (s 01.00 through 06.00)*

67.694 ROTATING TOPICS IN ACTING/DIRECTING (s 03.00) Designed for advanced graduate student who wishes to study varying and special problems approached from perspective of director. Course investigates specific problems of performance and emphasizes various approaches to performance material and preparation techniques. Meets jointly with 67.494.

67.697 SELECTED TOPICS: SEMESTER THEME PROJECTS (s 02.00 through 03.00) Open to students of any discipline seeking innovative approach for investigation of the arts in context of social, economic, and political milieu of selected periods of history, e.g., America in the '50's and '60's, Germany between the Wars, etc. Historical period for investigation changed each semester and major departmental stage production selected from works of the period. Meets jointly with 67.397.

67.797 MASTER'S THESIS SEMINAR (s 01.00 through 06.00)

67.798 NON-THESIS OPTION SEMINAR (s 03.00 through 06.00)

Performing Arts Academy

CHAIRMAN OF COORDINATING BOARD Naima Prevots

Director of Theatre Elizabeth Daley

Director of Music Vito Mason

Director of Operations Valerie Morris

In this summer program high quality professional training is offered in dance, music and theatre. Students are involved in both course work and performance and work with major visiting artists in their performance areas. All courses and rehearsals take place on The American University campus. Performances are scheduled throughout the Washington metropolitan area.

For further information, contact The American University Academy for the Performing Arts, College of Arts and Sciences, The American University, Washington, D.C. 20016.

Courses of Instruction

Not all courses in this listing are offered each summer.

Undergraduate Courses

48.390 INDEPENDENT READING COURSE (c 00.25 through 02.00)*

48.490 INDEPENDENT STUDY PROJECT (c 00.25 through 02.00)*

DANCE

48.130 MODERN DANCE I (c 00.25) Development of ability to communicate through movement; development of dance vocabulary, dance skills, and ability to analyse movement and to understand dance.

48.131 MODERN DANCE II (c 00.25) Continuation of Modern Dance I. Development of more complex dance skills through learning and analysing longer movement sequences.

48.138 TAP DANCE I (c 00.25) Students study and develop various skills and concepts connected with this form of dance. Includes study of rhythm, transfer of weight, locomotion and spatial combinations.

* See description under "General Curriculum Information" in this publication.

- 48.301 DANCE COMPOSITION I (c 00.25)** Discovery of rich movement vocabulary and techniques of choreography.
- 48.305 POPULAR DANCE FORMS (c 00.25)** Different social dance forms—ballroom, square dance, etc.—authentically taught.
- 48.315 MOVEMENT WORKSHOP (c 00.25)** Study of the relationship of various components of movement such as rhythm, style, dynamics, and space.
- 48.335 BALLET I (c 00.25)** Study of the vocabulary of classical ballet. Barre, port de bras, body and arm coordination.
- 48.336 BALLET II (c 00.25)** Continuation of Ballet I.
- 48.353 JAZZ I (c 00.25)** Study of jazz development and its technique.
- 48.401 DANCE COMPOSITION II (c 00.25)** Ability to find and develop movement and dance ideas into longer formal and informal structures.
- 48.453 JAZZ II (c 00.25)** Continuation of Jazz I.

MUSIC

- 48.397 SELECTED TOPICS—STAGE BAND AND JAZZ IMPROVISATION WORKSHOP (c 00.50)** Jazz and jazz-improvisation geared to high school student and his teacher. Improvisation and performance skills related to big band jazz developed while working with some of the top jazz musicians in the field.

THEATRE

- 48.314 YOGA (c 00.25)** Beginning yoga techniques which aid the performer in relaxation physical awareness, and stage movement introduced and explored.
- 48.323 VOICE FOR PERFORMANCE (c 00.25)** Offered on beginning, intermediate and advanced levels; focuses on voice production and vocal flexibility and relaxation.
- 48.324 STUDIES IN PERFORMANCE (c 00.25)** Includes number of sections each dealing with an aspect or technique of the actor's art. Depending on resident artists, technique may range from those of Jerzy Grotowski and Viola Spolin to those of Stanislowski. Topic areas range from scene study to psycho-physical exercises. Students may take several sections of this course simultaneously.

Graduate and Advanced Undergraduate Courses

- 48.590 INDEPENDENT READING COURSE (s 01.00 through 06.00)***

DANCE

- 48.500 ARTS MANAGEMENT (s 01.00)** Study of various facets of management in the arts such as contracts, logistics, organizations, etc.
- 48.501 DANCE COMPOSITION III (s 01.00)** Continuation of Dance Composition II. The ability to develop choreographic ideas for both individuals and groups.
- 48.502 DANCE IMPROVISATION (s 01.00)** Ability to develop dance and movement ideas from various structures and stimuli.
- 48.503 LABANOTATION (s 01.00)** Development of the ability to understand and utilize system of notation of dance developed by Rudolph von Laban in conjunction with understanding of his theories of effort and shape.
- 48.504 ETHNIC DANCE (s 01.00)** Different dance forms from various ethnic groups. Recent studies have included Yemenite and African dance forms.
- 48.509 PERFORMANCE THROUGH REPERTORY (s 01.00)** Understanding and analysis of dance performance through the study of repertory.
- 48.510 TECHNIQUE THROUGH REPERTORY (s 01.00)** Understanding and analysis of dance technique through study of repertory. Student will examine relationship between skill, projection, and performance with the focus on growth in all three.

* See description under "General Curriculum Information" in this publication.

- 48.511 EFFORT SHAPE (s 01.00)** Analysis of energy and flow in movement patterns leading to deeper understanding of course and motivation.
- 48.516 ANATOMY AND KINESIOLOGY FOR DANCE (s 01.00)** Understanding of muscular and skeletal structure of the human body as it relates to dance movement and understanding of the mechanical functioning of the human body as it relates to dance movement.
- 48.517 DANCE THERAPY (s 01.00)** Development of the ability to understand how movement used in various types of therapeutic situations. Understanding of the relationships of dance and feeling and dance and personality.
- 48.518 COSTUMING FOR DANCE (s 01.00)** Designing costumes, primarily for dance. Each student designs and executes a costume or costumes for a dance. Getting to know available materials, both natural and manmade; seeing, feeling, and understanding every available element; using fabric; pictures, drawings, and photographs of costumes and performers; patterns, headdress, hairdos and interesting footwear; and the face, covered and uncovered.
- 48.519 DANCE REPERTORY PERFORMANCE (s 01.00)** Study of one or several specific dance works that have already been choreographed. Undertaken with a view towards understanding various masterworks and professional pieces in the dance repertory. Students in this class perform the piece or pieces learned.
- 48.520 LIGHTING (s 01.00)** Development of ability to understand the equipment used in lighting and how to use lights for a dance performance.
- 48.531 MODERN DANCE III (s 01.00)** Continuation of Modern Dance II. Student expected to understand and perform very complex dance sequences. Student expected to understand subtleties of quality and feeling in different kinds of dance patterns.
- 48.535 BALLET III (s 01.00)** Continuation of Ballet II. Development of the ability to perform and understand complex dance sequences in the classical ballet vocabulary.
- 48.540 GRADUATE DANCE PROJECT SEMINAR (s 04.00)** Analysis of composition and technique directed towards methods in teaching. Graduate seminar. (Seminar encompasses two courses, so student should register for only one other course).
- 48.549 MUSIC FOR DANCE (s 01.00)** Study of various musical periods through the analysis of music repertory and individual creative work.
- 48.589 VIDEO READING CLASS (s 01.00)** Video tape learning, how it can and cannot be used. Includes tapes of repertory works.

MUSIC

- 48.562 CHORAL ARTS WORKSHOP (s 02.00)** Intensive study of choral art designed for choral directors; sessions include rehearsal techniques, repertoire-program building, diction-communication, building choral tone, balance and blend, techniques of conducting, choral musicianship, and evaluation of selected literature.
- 48.574 ORFF SCHULWERK WORKSHOP (s 03.00)** Study of Orff method, materials and instruments taught by certified Orff instructor. Specifically designed for elementary music specialist and classroom teacher, enrollment will be limited to first fifty applicants.
- 48.575 KODALY WORKSHOP (s 03.00)** Under the auspices of the Kodaly Training Institute, The American University offers the only summer Kodaly workshop in the mid-Atlantic region. Taught by two distinguished members of the Kodaly Institute, workshop will present solid exposure to the Kodaly method. Enrollment limited to first fifty applicants.
- 48.576 AMERICAN MUSIC WORKSHOP (s 02.00)** Investigation of composers and compositions of the United States, from colonial times to present.
- 48.578 MUSIC COMPOSERS WORKSHOP (s 04.00)** Workshop designed to reinforce artistic growth of young composers. Expanded Moog Synthesizer and quadraphonic support system at the disposal of composer participants. Workshop open to composers who have already achieved respectable level of technical competence. Guest artists include a number of distinguished American composers.

THEATRE

- 48.513 MIME (s 01.00)** Focus on mimetic expression for the actor.

48.514 YOGA (s 01.00) Designed for advanced undergraduates and graduate students who have some knowledge of yoga and who wish to explore more advanced techniques and exercises. Utilization of yoga techniques by the actor and dancer emphasized.

48.523 VOICE FOR PERFORMANCE (s 01.00) Offered on beginning, intermediate and advanced level, will focus on voice production and vocal flexibility and relaxation.

48.524 STUDIES IN PERFORMANCE (s 01.00) Studies in performance include a number of sections each dealing with an aspect or technique of actor's art. Depending on resident artists, technique may range from those of Jerzy Grotowski and Viola Spolin to those of Stanislowski. Topic areas range from scene study to psycho-physical exercises. Students may take several sections of this course simultaneously.

48.528 MOVEMENT FOR PERFORMANCE (s 01.00) Exploration of the basic problems of stage movement. Focuses on techniques of achieving spontaneous movement, movement appropriate to particular characters, physical relaxation and precision, clarity and purposefulness in movement, as well as techniques for specific problems such as stage falls.

48.529 DESIGN: TECHNIQUES AND PROBLEMS (s 01.00) Offers students an opportunity to gain and/or advance their practical and theoretical knowledge of design for sets, performance space, costumes and/or lights by working closely with professional designers. Students may take several sections of this course simultaneously.

48.582 DIRECTING STUDIES (s 01.00) Includes number of sections each dealing with some aspect of directing technique and theory. Particular techniques taught depend on resident artists and may include epic theatre and environmental theatre as well as more traditional studies. Students may take several sections of this course simultaneously.

48.583 THEORY OF PERFORMANCE (s 01.00) Course in which advanced students intensely study theoretical tasks for work of the resident artists.

48.584 CONCEPTS OF PLAYWRITING (s 01.00) Offers advanced students opportunity to study particular methods for developing scripts. Depending on the particular artists in residence, studies may range from realistic script to built pieces.

48.585 PROBLEMS IN TECHNICAL THEATRE (s 01.00) Offers students opportunity to advance their technical theatre skills by studying and working with practicing professionals. Areas may include lighting, construction of sets and costumes, stage managing, painting, etc. Students may take more than several sections of this course simultaneously.

Graduate Courses

48.690 INDEPENDENT STUDY PROJECT (s 01.00 through 06.00)*

DANCE

48.631 MODERN DANCE IV (s 01.00) Continuation of Modern Dance III. At this level of modern dance the student expected to perform, analyse and learn.

MUSIC

48.697 STAGE BAND AND JAZZ IMPROVISATION WORKSHOP (s 02.00) Jazz and jazz-improvisation geared to the high school student and his teacher. Improvisation and performance skills related to big band jazz will be developed while working with some of the top jazz musicians in the field.

Philosophy and Religion

CHAIRMAN Roger T. Simonds

FULL-TIME FACULTY

Professor H. A. Durfee (William Frazer McDowell Professor), T. R. Rosché, R. T. Simonds

Associate Professor G. Greenberg, C. D. Hardwick, D. F. T. Rodier, C. S. J. White

Assistant Professor P. H. Scribner

*See description under "General Curriculum Information" in this publication.

FIELDS OF STUDY Biblical theology, comparative religion, Eastern philosophy, epistemology, ethics, history of philosophy, Jewish philosophy, Jewish religion, logic, metaphysics, philosophy of religion, philosophy of science, philosophical theology, social philosophy

Undergraduate Degree Programs

Bachelor of Arts

COMPOSITION AND READING REQUIREMENT See "Undergraduate Degree Requirements" in this publication.

LANGUAGE REQUIREMENT See opening section under "College of Arts and Sciences" in this publication.

MAJOR IN PHILOSOPHY

The major in Philosophy is offered to lead to a degree at either of two levels according to two tracks: Philosophy and Philosophy—Honors.

PHILOSOPHY TRACK REQUIREMENTS (1) Major Courses: Nine courses in philosophy (of which three may be in religion) with at least a P (Pass) in all major or major related courses; (2) Related Courses: Three additional courses at the xx.300 level or above in a single department with the same grade requirement as above.

PHILOSOPHY—HONORS TRACK REQUIREMENTS (1) Major Courses: Nine courses in philosophy, including 60.100, 60.300, 60.301. Among major courses one may include up to three in religion at the xx.300 level or above. No more than three major or related courses may be taken on a pass/fail basis. (2) Related Courses: Three additional courses at the xx.300 level or above in a single department or area. (3) In the senior year students for this degree in philosophy will take two semesters of 60.498 Honors Project in Philosophy, in the context of which they will prepare a senior thesis on a suitable topic for presentation to and acceptance by the department before graduation. These two courses may be counted among the nine major courses. Instead of taking two semesters of 60.498, a student in the Honors track may choose to take a final comprehensive examination, one part of which will be based upon an acceptable research paper submitted by the student. (4) One language through the intermediate level: French, German, Greek, Latin. Another language may be offered, with permission, if related to the student's research interests.

MAJOR IN RELIGION

The major in Religion is offered to lead to a degree at either of two levels according to two tracks: Religion and Religion—Honors.

RELIGION TRACK REQUIREMENTS (1) Major Courses: Nine courses in religion of which three may be in philosophy or Jewish Studies or both. The student may take as many of his courses as he wishes for a Pass grade. (2) Related Courses: Three additional courses at the xx.300 level or above in a single department. There is no language requirement.

RELIGION—HONORS TRACK REQUIREMENTS (1) Major Courses: Nine courses in religion to include three from among 61.150 Hebrew Scriptures, 61.170 New Testament, 61.180 Introduction to Religious Thought, and 61.270 Religious Heritage of the West. The student will also take 61.183 Comparative Religions and one course from among advanced level courses in non-Judeo-Christian religious traditions. Among major courses one may include up to three in philosophy or Jewish Studies or both at the xx.300 level or above. No more than three courses may be taken on a pass/fail basis. (2) Related Courses: Three additional courses at the xx.300 level or above in a single department. (3) Senior Seminar: In addition to the nine required courses, in the senior year, two semesters of 61.490 Independent Study Project in Religion or 61.498 Honors Project in Religion, in the context of which the student prepares a senior thesis on a suitable subject to be presented and accepted before graduation. Instead of two semesters of 61.490, one may choose to take a final comprehensive examination, one part of which will be based upon an acceptable research paper. (4) Language Requirement: One language through the intermediate level: French, German, Spanish, Latin, Greek, Hebrew, or Sanskrit. Another language may be offered, with permission, if related to one's research interests.

Graduate Degree Programs

Candidates for graduate degrees in all academic units must meet the requirements set forth in the University Minimum Standards for Graduate Studies. The requirements appearing below are those of this department and do not relieve degree candidates from compliance with the minimum standards.

Master of Arts

MAJOR IN PHILOSOPHY

Two means are available for achieving an M.A. degree in Philosophy.

FIRST METHOD

Course Requirements Minimum of thirty hours of approved graduate work including 60.797 Master's Thesis Seminar (six hours).

Written Comprehensive Examination One eight-hour examination in philosophy (administered in two days, four hours each day). Examination fields 60.01A and 60.01B Philosophy.

Other Requirements Proficiency examination in either French or German. Thesis and oral defense of thesis.

SECOND METHOD Admission to a Ph.D. program and satisfactory completion of all requirements for the program except the dissertation.

MAJOR IN RELIGIOUS STUDIES

COURSE REQUIREMENTS Minimum of thirty hours of approved graduate work, including 61.797 Master's Thesis Seminar (six hours).

COMPREHENSIVE EXAMINATION FIELDS Three are required, including one in the history of religions with special emphasis upon a selected non-Christian religion, one in the English Bible with special emphasis upon a selected author, and one in the History of Christian Thought with special emphasis upon a selected classical figure, or a related field: 61.003 History of Religions (with special emphasis upon a selected non-Christian religion); 61.004 English Bible (special emphasis upon a selected author); 61.021 History of Christian Thought (with special emphasis upon a selected classical figure in the same).

OTHER REQUIREMENTS Proficiency examination in French, German, Greek or Hebrew. Thesis and oral defense of thesis.

MAJOR IN HISTORY OF RELIGIONS

This major program focuses on a specialization in the Hindu tradition. It is a program conducted through the Consortium of Universities of the Washington Metropolitan Area.

COURSE REQUIREMENTS Thirty hours of course work selected from courses approved for graduate credit at the member universities. These universities include The American University, George Washington University, The Catholic University of America, and Georgetown University. From among these thirty hours, a four course sequence in Indian literature is required: George Washington course Rel. 159; Georgetown course 095-108; Catholic University course Rel. Indian Literature III; and American University course 61.674. Also, one course in method is required.

THESIS In addition to thirty hours of course work, the student will submit an acceptable thesis on one particular aspect of the Hindu tradition during the final semester of course work. The candidate must register for six hours of 61.797 Master's Thesis Seminar.

COMPREHENSIVE EXAMINATION A comprehensive examination having the following three components will be given during the student's last semester of course-work: (1) *Methods* in the study of religions; (2) *Thematic Comparisons* between the Hindu tradition and at least two other religious traditions, including at least one Western tradition; (3) *Special Field*: the Hindu tradition.

LANGUAGES Two languages will be required in addition to the thirty hours: (1) *Modern*: the student must pass an examination in either French or German. (Another modern language may under some circumstances be substituted, with approval.); (2) *Special Area*: the student must take at least two semesters of either Sanskrit or Hindi. This special requirement may be waived, under appropriate circumstances, by examination.

ADMISSION For admission into this program through The American University the prospective student should have a suitable background in religious or South Asian studies or both as determined by the Department of Philosophy and Religion. Application should be made directly to this department.

Doctor of Philosophy

MAJOR IN PHILOSOPHY

GENERAL REQUIREMENTS Minimum of seventy-two hours of approved graduate work is required of which at least thirty hours (plus twelve to twenty-four hours of dissertation seminar) must be completed in residence at The American University. Two substantial papers must be presented within one year after residence hours have been completed and prior to advancement to candidacy.

ADMISSION For admission consideration it is recommended that a student have a superior undergraduate record and take the Graduate Record Examination including the Philosophy Examination. Two letters of recommendation are required.

COURSE REQUIREMENTS Seventy-two hours including up to forty-eight hours overall of graduate seminar in philosophy and twelve to twenty-four hours of dissertation seminar.

TOOLS OF RESEARCH Two language proficiency examinations, French and German or acceptable substitutes, are necessary.

WRITTEN COMPREHENSIVE EXAMINATIONS One written comprehensive examination must be taken before completion of twenty-four hours of course work. Four are required, to include: 60.010 Logic and Epistemology and 60.015 Metaphysics. Two others are to be chosen from: 60.020 Ethics, 60.025 Philosophy of Religion, 60.030 Philosophy of Science, 60.035 Social Philosophy.

ORAL COMPREHENSIVE EXAMINATION One is required in a field selected by the student and with departmental approval.

ADVANCEMENT TO CANDIDACY Upon successful completion of the comprehensive examinations, two substantial papers, and with departmental approval, the student will be advanced to candidacy for the doctoral degree.

DISSERTATION AND ORAL DEFENSE The doctoral candidate is required to enroll for twelve to twenty-four hours of dissertation seminar. The dissertation topic must be proposed within six months after passing comprehensive examinations.

Courses of Instruction

PHILOSOPHY

Undergraduate Courses

60.100 INTRODUCTION TO LOGIC (c 01.00) Basic principles of inductive and deductive reasoning. Test and exercises supplemented by readings and discussions on history, philosophy and applications of logic.

60.101 INTRODUCTION TO PHILOSOPHY (c 01.00) Questions man has asked about himself, the world, and the origin, purpose and destiny of life; representative answers given by the great thinkers.

60.102 PHILOSOPHIES MEN LIVE BY (c 01.00) Selected philosophers in the history of Western thought; their relevance to human existence.

HISTORY OF IDEAS

60.300 ANCIENT AND MEDIEVAL PHILOSOPHY (c 01.00) History of western philosophy from earliest period through sixteenth century. Understanding the various philosophers in terms of general cultural milieu. History of philosophy during this period interpreted in terms of formation of classical world-view and accommodation of this world picture to requirements of Judaism, Christianity, and Islam. No previous philosophic training assumed and non-philosophy majors encouraged to correlate history of philosophy with historical aspects of own discipline. Meets jointly with 60.600.

60.301 MODERN PHILOSOPHY FROM BACON TO HEGEL (c 01.00) Development of modern Western philosophical ideas studied in relation to the scientific, cultural and political environment of seven-

teenth and eighteenth century Europe. No previous course-work in philosophy required, but students will find helpful to have taken 60.300. Meets jointly with 60.601.

60.302 RECENT PHILOSOPHY SINCE HEGEL (c 01.00) Philosophers from Hegel to contemporary existentialism and linguistic analysis. Not open to freshmen. Meets jointly with 60.602.

60.303 AMERICAN PHILOSOPHY (c 01.00) Backgrounds and substance of American Philosophy since colonial times. Role of philosophical ideas, European and indigenous, in growth of American culture. Meets jointly with 60.603. *Prerequisite:* one course in philosophy.

MAJOR PHILOSOPHERS AND MOVEMENTS

60.310 THE CLASSICAL PERIOD (c 01.00) Regularly recurring topics: The Pre-Socratics; Plato; Aristotle; Neo-Platonism; Augustine. Meets jointly with 60.610. *Prerequisite:* 60.300 or permission of instructor.

60.311 MODERN EUROPEAN MOVEMENTS (c 01.00) Regularly recurring topics: The British Empiricists; Continental Rationalists; Kant; Hegel; Post-Hegelian Idealism. Meets jointly with 60.611. *Prerequisite:* 60.301 or permission of instructor.

60.312 RECENT AND CONTEMPORARY PHILOSOPHERS (c 01.00) Regularly recurring topics: Nietzsche; Kierkegaard; Husserl; Naturalism; French Existentialism; German Existentialism; Post-Existential Phenomenology; Analytic Philosophy; Analytic Philosophy and Phenomenology. Meets jointly with 60.612. *Prerequisite:* two courses in philosophy or permission of instructor.

60.313 STUDIES IN ORIENTAL PHILOSOPHY (c 01.00) Regularly recurring topics: Buddhist Philosophy; Chinese Philosophy. Meets jointly with 60.613.

PHILOSOPHY AND SOCIETY

60.320 ETHICS (c 01.00) Inquiry into the principles of moral evaluation, their relation to factual judgment and individual and social behavior. Evaluation of traditional schools and theories of ethics. Meets jointly with 60.620. *Prerequisite:* one course in philosophy.

60.321 PHILOSOPHY, POLITICS AND SOCIETY (c 01.00) Theories about the nature of society and justification of social institutions; critical study of selected social problems (control of technology and the environment, education, militarism, racism, imperialism, civil disobedience, rebellion, revolution). Meets jointly with 60.621. *Prerequisite:* one course in philosophy.

60.322 PHILOSOPHY AND WESTERN LEGAL TRADITIONS (c 01.00) Investigation of some leading philosophical theories of the nature and functions of law, and relationship of these theories to legal traditions themselves. Meets jointly with 60.622. *Prerequisite:* one course in philosophy.

PHILOSOPHY AND THE ARTS

60.330 AESTHETICS (c 01.00) Philosophical theories of meaning and value of art in Western culture, illustrated by reference to specific works of literature, drama, painting, sculpture, architecture and music. Students majoring in artistic fields encouraged to do interdisciplinary projects dealing with application of aesthetic theory to materials in their own fields. Meets jointly with 60.630. *Prerequisite:* one course in philosophy.

60.331 ROMANTICISM (c 01.00) Exploration of some main themes in philosophical writings of late eighteenth and early nineteenth centuries associated with the Romantic movement in literature and the arts. Readings in Rousseau, de Staël, Kant, Schiller, Fichte, Schelling, Chateaubriand, Schopenhauer, and others. First ten weeks devoted to lecture-discussions on philosophical themes in these writings. Students expected to develop projects relating these themes to materials in their own major field of interest. Some of these projects presented and discussed in the latter part of the course. Meets jointly with 60.631.

PHILOSOPHY AND THE SCIENCES

60.340 PHILOSOPHY OF SCIENCE (c 01.00) Fundamental questions about the logic of scientific theory, the process of discovery and the relations between scientific and philosophical concepts. Meets jointly with 60.640. *Prerequisite:* 60.100 or permission of instructor.

60.341 PHILOSOPHY OF THE SOCIAL SCIENCES (c 01.00) Philosophy of the social sciences. Includes the nature of explanation, extent of prediction, use of theories, applicability of the methods of natural sciences in the social sciences and objectivity and value neutrality of social scientific

knowledge. Meets jointly with 60.641. *Prerequisite*: one course in philosophy or permission of instructor.

SYSTEMATIC PHILOSOPHY AND ANALYSIS

60.350 MODERN DEDUCTIVE LOGIC (c 01.00) Introduction to modern symbolic methods in deductive reasoning with some discussion of the merits of competing systems and the philosophical issues involved. No special knowledge of mathematics required. Meets jointly with 60.650. *Prerequisite*: 60.100 or permission of instructor.

60.351 LOGICAL ANALYSIS (c 01.00) Application of logical theory to philosophical discourse. Includes concept of truth, propositions, theory of descriptions, existential import, modal and deontic functions. Meets jointly with 60.651. *Prerequisite*: 60.350.

60.352 EPISTEMOLOGY (c 01.00) One of following topics: Knowledge and Belief; Memory and the Past, Meaning and Meaningfulness; Thought and Feeling; Observation in the Social Sciences. Meets jointly with 60.652. *Prerequisite*: two courses in philosophy or permission of instructor.

60.353 METAPHYSICS (c 01.00) One of following topics: Mind and Soul; The Concept of Freedom; Analysis and Explanation of Action; Metaphysics and Metaphilosophy. Meets jointly with 60.653. *Prerequisite*: two courses in philosophy or permission of instructor.

60.354 ETHICS AND META-ETHICS (c 01.00) One of following topics: Analytic Ethics; The Boundaries of Ethics; Existential Behavior. Meets jointly with 60.654. *Prerequisite*: two courses in philosophy or permission of instructor.

60.355 PHILOSOPHY OF RELIGION (c 01.00) Study of leading contemporary movement in philosophy of religion. Meets jointly with 60.655. *Prerequisite*: two courses in philosophy or permission of instructor.

60.390 INDEPENDENT READING COURSE IN PHILOSOPHY (c 00.25 through 02.00)*

60.396 SELECTED TOPICS (Non-Recurring) (c 01.00)*

60.490 INDEPENDENT STUDY PROJECT IN PHILOSOPHY (c 00.25 through 02.00)*

60.498 HONORS PROJECT IN PHILOSOPHY (c 02.00)

Additional courses which may be taken for major credit in Philosophy include any Liberal Studies courses taught by the Philosophy faculty, and

61.305 PHILOSOPHIES OF THE EAST

Graduate and Advanced Undergraduate Courses

60.590 INDEPENDENT READING COURSE IN PHILOSOPHY (s 01.00 through 06.00)*

Graduate Courses

The following courses, 60.600 through 60.655, have identical titles and course descriptions to 60.300 through 60.355. These courses meet jointly with their xx.300 level counterparts. See descriptions under xx.300 level numbers. Graduate students enrolling in any of these xx.600 level courses should consult the instructors about special requirements.

60.600 ANCIENT AND MEDIEVAL PHILOSOPHY (s 03.00)

60.601 MODERN PHILOSOPHY FROM BACON TO HEGEL (s 03.00)

60.602 RECENT PHILOSOPHY SINCE HEGEL (s 03.00)

60.603 AMERICAN PHILOSOPHY (s 03.00)

60.610 THE CLASSICAL PERIOD (s 03.00)

60.611 MODERN EUROPEAN MOVEMENTS (s 03.00)

60.612 RECENT AND CONTEMPORARY PHILOSOPHERS (s 03.00)

60.613 STUDIES IN ORIENTAL PHILOSOPHY (s 03.00)

60.620 ETHICS (s 03.00)

* See description under "General Curriculum Information" in this publication.

- 60.621** PHILOSOPHY, POLITICS AND SOCIETY (s 03.00)
- 60.622** PHILOSOPHY AND WESTERN LEGAL TRADITIONS (s 03.00)
- 60.630** AESTHETICS (s 03.00)
- 60.631** ROMANTICISM (s 03.00)
- 60.640** PHILOSOPHY OF SCIENCE (s 03.00)
- 60.641** PHILOSOPHY OF THE SOCIAL SCIENCES (s 03.00)
- 60.650** MODERN DEDUCTIVE LOGIC (s 03.00)
- 60.651** LOGICAL ANALYSIS (s 03.00)
- 60.652** EPISTEMOLOGY (s 03.00)
- 60.653** METAPHYSICS (s 03.00)
- 60.654** ETHICS AND META-ETHICS (s 03.00)
- 60.655** PHILOSOPHY OF RELIGION (s 03.00)
- 60.690** INDEPENDENT STUDY PROJECT IN PHILOSOPHY (s 01.00 through 06.00)*
- 60.702** GRADUATE SEMINAR IN PHILOSOPHY (s 03.00 through 12.00) Intensive study of selected philosophical problems under individual direction. *Prerequisite:* four courses in philosophy. Multiple registrations of three semester hours each through maximum of twelve hours are permitted during a semester. Topics: History of Philosophy; Metaphysics; Logic; Epistemology; Philosophy of Science; Value Theory; Philosophy of Religion; Social Philosophy; Eastern Philosophy.
- 60.797** MASTER'S THESIS SEMINAR (s 01.00 through 06.00) Directed research of M.A. thesis proposal. *Prerequisite:* permission of chairman.
- 60.799** DOCTORAL DISSERTATION SEMINAR (s 01.00 through 24.00) Directed research of Ph.D. dissertation proposal. *Prerequisite:* permission of chairman.

RELIGION

Undergraduate Courses

- 61.150** BIBLICAL HEBREW SCRIPTURES (c 01.00) Emphasis upon substantive content of the Old Testament, with special attention paid to historical and cultural background of the text.
- 61.170** INTRODUCTION TO THE NEW TESTAMENT (c 01.00) Literary, historical and theological study of New Testament with particular attention upon Jesus, Paul, and development of Christian movement.
- 61.180** INTRODUCTION TO RELIGIOUS THOUGHT (c 01.00) Investigation of nature of religion and of differing methodologies for study of religion with emphasis on problems of religion and society, man's attempt to understand his nature and destiny, religion and the quest for wholeness, modern man and the question of transcendence.
- 61.183** COMPARATIVE RELIGION (c 01.00) Historical-religious study of world's major religions: Shinto, Confucianism, Taoism, Buddhism, Hinduism, Islam, Christianity, Judaism, and including attention to basic problems in understanding someone else's religion. Course includes films, slide lectures, field trips, and guest lecturers.
- 61.270** THE RELIGIOUS HERITAGE OF THE WEST (c 01.00) Consideration of contribution of Western Religious heritage to developing ethos of Western man, from Mesopotamian, Greek, and Jewish roots through rise of Christianity and Islam to Middle Ages, Reformation, and beginnings of modern secularization process.
- 61.300** CONTEMPORARY RELIGIOUS THOUGHT (c 01.00) Examination of major currents in nineteenth and twentieth century Jewish and Christian religious thought. Includes origins of religious existentialism, rise of modern atheism, conflict with natural and social sciences, influence of historical-critical method, development of religious liberalism and the twentieth century reaction of neo-orthodoxy and "crisis theology."
- 61.305** PHILOSOPHIES OF THE EAST (c 01.00) Introduces the student to special world views of

*See description under "General Curriculum Information" in this publication

Hinduism, Buddhism, Chinese and Japanese thought, and Islam. Emphasis upon the development of individual approaches and understanding.

61.306 ORIENTAL THOUGHT IN LITERATURE (c 01.00) Acclaimed literary works of the Hindus, Buddhists, Muslims, Shintoists and others will be read in context of cultural, religious and philosophical self-revelation. Includes field trips to art galleries and other types of cultural experiences, where possible, to enhance appreciation of oriental setting.

61.320 HISTORY OF JEWISH THOUGHT I (c 01.00) Development of Jewish thought from covenantal prophecy in Hebrew scripture to ethics and philosophy in Middle Ages, with attention to social factors and their intellectual repercussions. Part of the Morris Gewirz Series in Jewish Thought.

61.321 HISTORY OF JEWISH THOUGHT II (c 01.00) Impact of historical events on Jewish thought from 1492 Spanish expulsion to the present. Part of the Morris Gewirz Series in Jewish Thought.

61.331 JUDAISM AND CHRISTIANITY (c 01.00) Basic issues in biblical and post-biblical literature of Judaism and Christianity (e.g. nature of covenant, Messiah, Kingdom-state, Law, faith, etc.).

61.333 PEACE AND CHANGE: A PERSONAL AND SOCIAL EQUATION (c 01.00) Investigation of peace literature (e.g. Lao-tzu, Gandhi, Thoreau, King, et al.), emphasizing programmatic results for individual and social change; experimentation in small groups.

61.341 RADICAL THEOLOGY AND THE SEARCH FOR A NEW RELIGIOUS LIFE STYLE (c 01.00) Examination of contemporary religious responses to "crisis of religious meaning" in modernity. Included are radical Jewish and Christian theologies, Death of God Movement, secular and humanistic "religions", the Counter-Culture, and the interest in the occult and Eastern religions in contemporary West.

61.342 FREUD AND CULTURE (c 01.00) Study of classical psychoanalytic theory and its influence on twentieth century culture (especially in such fields as anthropology, sociology, religion, and literature).

61.343 DEPTH PSYCHOLOGY AND RELIGION (c 01.00) Exploration of influence of depth psychology on twentieth century religious understanding: seeing it both (1) as a way depth psychology has *explained* religion and (2) as a way contemporary thinkers (theologians and non-theologians) have sought to *understand* and *express* the integrity of religious meaning. Freudian, neo-Freudian, existential, and Jungian forms of depth psychology examined.

61.345 RELATIVISM AND MODERN RELIGIOUS THOUGHT (c 01.00) Examination of the influence of relativism and sociology of knowledge on nineteenth and twentieth century religious meaning. Emphasis placed on exploring the pre-suppositions of relativism in its sociological, historical, scientific, and philosophical dimensions as these have influenced theological formulation.

61.350 SPECIAL STUDIES IN JEWISH RELIGIOUS THOUGHT (c 01.00) Offerings alternate by semester and include: Jewish Mysticism; Modern Jewish Philosophy; Biblical Theology; Jewish Existentialism; Conceptions of Jewish History; Medieval Jewish Philosophy; and American Judaism. Part of the Morris Gewirz Series in Jewish Thought. *Prerequisite:* 61.320 and 61.321.

61.360 JESUS: PROPHET, MIRACLE-WORKER, MADMAN? (c 01.00) Attempt to develop method by which to uncover life and teachings of the historical Jesus; to compare these findings with other early and recent Jewish and Christian portraits of Jesus.

61.361 PAUL, THE JEW, AND EARLIEST CHRISTIANITY (c 01.00) Analysis of the life and literature of this early Christian with special emphasis upon his relation both to Pharisaic Judaism and to Hellenistic thought; modern interpretations also read.

61.362 THE LITERATURE OF RABBINIC JUDAISM, HELLENIZED ROMANS, AND EARLY CHRISTIAN FATHERS COMPARED (c 01.00) Typological approach through readings in Mishnah and Talmud of post-biblical Judaism, Gnostic and Hermetic Roman literature, and early post-biblical Christian Church Fathers; investigations of modern equivalence of these three types.

61.363 MESSIANISM AND HOPE: ANCIENT AND MODERN (c 01.00) Analysis of forms of hope in Bible, ancient (e.g. Plato, Augustine, et al.) and modern (e.g. Marx, Saint Simon, Sectarians, et al.) writers; emphasis upon roots for human hope both in evaluations of the self and society.

61.370 ISLAM (c 01.00) Hundreds of millions of people adhere to Islam, described sometimes as world's fastest growing religion. Students examine historical origins, prophet Muhammad, Quran and other formative elements underlying modern Muslim situation.

61.371 THE SAINT: A SYSTEMATIC APPROACH (c 01.00) Striking segment of religious history turns on spiritual experience of gifted religious specialists, sometimes called saints. Discuss the phenomena and spirituality of sainthood comparatively to clarify the nature of this human category.

61.372 THE RELIGION OF GREECE AND THE MEDITERRANEAN WORLD (c 01.00) Religion of Greece from pre-history to Byzantine times provides the focus for examination of development of religious history in Eastern and African regions of the Mediterranean.

61.373 HINDUISM (c 01.00) This amazingly vital, age-old religion has more than once extended its influence beyond a religion of truly world-wide significance. Origins, early literature and main expressions of Hinduism (including Yoga, Bhakti, and cult of the Divine Mother) presented. Students develop topics of their own interest.

61.374 THE RELIGION OF LATIN AMERICA BEFORE THE CONQUEST (c 01.00) Aztec, Mayan and Inca religious cultures flourished just prior to the time of Spanish *Conquista*. Aspects of this history, relevant to all American peoples, examined with some reference to American Indian religious experience outside Latin America.

61.381 METHODOLOGY FOR THE STUDY OF RELIGION (c 01.00) Controversialists argue either that there *is* or *is not* something unique about religion, inexplicable in other terms. Methodologies drawn both from history of religions itself and from various social sciences (sociology, anthropology, and psychoanalysis) examined. By exploring both sides of the issue, students aided in developing techniques for study in history of religions.

61.386 TOPICS IN RELIGIOUS DISCUSSION (c 01.00) Examination of important problems, thinkers, and issues in classical and contemporary religious thought. Recent offerings have included: Thought of Reinhold Niebuhr; Philosophical Theology of Paul Tillich; Thought of Rudolf Bultmann; God Talk; Problem of God; Social Scientific Study of Religion in Small Group Process; New Religious Movements; Occult World; Johannine Literature; Prophets and Politics.

61.390 INDEPENDENT READING COURSE IN RELIGION (c 00.25 through 02.00)*

61.490 INDEPENDENT STUDY PROJECT IN RELIGION (c 00.25 through 02.00)*

61.498 HONORS PROJECT IN RELIGION (c 02.00)

Additional courses which may be taken for major credit in Religion include any Liberal Studies courses taught by the Religion faculty, and

60.313 STUDIES IN ORIENTAL PHILOSOPHERS

75.333 MAN THE MYTHMAKER

Graduate and Advanced Undergraduate Courses

61.590 INDEPENDENT READING COURSE IN RELIGION (c 01.00 through 06.00)*

Graduate Courses

61.690 INDEPENDENT STUDY PROJECT IN RELIGION (s 01.00 through 06.00)*

61.692, 61.694 GRADUATE SEMINAR IN RELIGIOUS STUDIES (s 03.00 through 12.00) Intensive study of selected problems in religious thought. With faculty permission, student attends undergraduate class in selected problem at time scheduled for that course. Student also meets individually with professor for additional intensive tutorial work. Register for 61.694 if graduate degree is in Religious Studies; 61.692 has been designed for graduate students in other fields who wish to do interdisciplinary work in Religious Studies.

61.797 MASTER'S THESIS SEMINAR (s 03.00 through 06.00) Directed research of M.A. thesis proposal. *Prerequisite:* permission of chairman.

Physical Education

CHAIRMAN Robert H. Frailey

FULL-TIME FACULTY

Professor R. H. Frailey, D. S. Geiser, V. E. Hawke

* See description under "General Curriculum Information" in this publication.

Associate Professor B. G. Coward, J. D. Frady, J. W. Hubbell, R. C. Karch, R. McFeeter, L. G. Nyce, B. J. Reimann
Assistant Professor J. R. Rogers
Instructor P. Mehler

FIELDS OF STUDY Health education, physical education, athletic administration, coaching, recreational leadership

Undergraduate Degree Program

Bachelor of Arts, Bachelor of Science

MAJOR IN PHYSICAL EDUCATION

The Bachelor of Science degree prepares the student to meet certification requirements of teaching physical education. This is the degree usually taken by most students in physical education.

The Bachelor of Arts degree offers the student competencies in the major with the exception of the professional courses.

The department also is able to assist students in planning an interdisciplinary program leading to a Bachelor of Science or a Bachelor of Arts degree.

ADMISSION TO THE MAJOR Freshmen and transfer students are admitted. Academic standards are the same as the University standards.

COMPOSITIONS AND READING REQUIREMENT See "Undergraduate Degree Requirements" in this publication.

LANGUAGE REQUIREMENT See opening section under "College of Arts and Sciences" in this publication.

DEPARTMENTAL REQUIREMENTS Major courses in the tracks of study as follows.

Physical Education (1) Content Courses (basic courses in the discipline): 49.100 Physical Education Activities (minimum of four half course units at the xx.100 level); 49.221 Foundations and History of Physical Education and Sport; 49.315 Care and Prevention of Athletic Injuries; 49.330 Health and Safety; 49.421 Organization and Administration of Health and Physical Education; 49.424 Kinesiology; 49.500 Measurement and Evaluation of Health and Physical Education. (2) Professional Courses (required for teacher certification): 49.210 Methods and Materials in Physical Education; 49.211-49.219 Laboratory Teaching Skills (minimum of five half course units should be selected; one should be 49.217); 49.310 Elementary School Movement Education (for elementary school physical education specialists in place of one 49.200 level Laboratory Teaching Skills course); 49.335 Elementary School Games (for elementary school physical education specialists in place of one 49.200 level Laboratory Teaching Skills course). (3) Related Courses for Teacher Preparation: 17.110 Public Speaking, or equivalent; 21.300 Foundations of Education; 21.320 Psychology of Education; 21.342 Methods of Teaching in Secondary Schools: General (for health education teachers only); 21.444 Student Teaching: Early Childhood and Elementary, or 21.445 Student Teaching: Secondary Schools. (4) Tool and Related Courses: See (3).

Health Education These courses may be taken in combination with a major in another discipline. (1) Content Courses: 49.315 Care and Prevention of Athletic Injuries; 49.330 Health and Safety; 49.421 Organization and Administration of Health, Physical Education, and Athletics (for those preparing to teach); 49.510 Health Education. (2) Tool and Related Courses: Information concerning courses in other departments is available in the Department of Physical Education.

Athletic Administration, Coaching, and Recreational Leadership These courses may be taken in combination with a major in another discipline. (1) Content Courses: 49.221 Foundations and History of Physical Education and Sport; 49.315 Care and Prevention of Athletic Injuries; 49.324 Principles and Psychology of Coaching; 49.421 Organization and Administration of Health and Physical Education; 49.550 Recreation Programs. (2) Professional Courses: 49.211-49.219 Laboratory Teaching Skills (half course unit each; minimum of two half course units). (3) Tool and Related Courses: Information concerning courses in other departments is available in the Department of Physical Education.

Graduate Degree Program

Master of Education

MAJOR IN PHYSICAL EDUCATION

A master's degree is awarded with a major in Physical Education through the School of Education. For School of Education requirements, see information in that section of this publication.

Courses of Instruction

Undergraduate Courses

49.100 SWIMMING I (c 00.50) Development of basic skills and personal safety in swimming. For non-swimmers.

49.101 SWIMMING II (c 00.50) Continuation of 49.100. *Prerequisite:* intermediate level.

49.102 LIFE SAVING (c 00.50) Development of safety skills, use of life saving equipment and techniques of swimming rescues. *Prerequisites:* 49.101 or permission of instructor.

49.103 SKIN DIVING AND SURVIVAL SWIMMING (c 00.50) Basic techniques of skin diving, survival swimming, and SCUBA.

49.104 SCUBA (c 00.50) Techniques in use of self-contained underwater breathing apparatus. *Prerequisite:* 49.103 or permission of instructor of 49.103.

49.105 SPRINGBOARD DIVING (c 00.50) Development of beginning and advanced diving skills.

49.106 SYNCHRONIZED SWIMMING (c 00.50) Skills and techniques of individual figures, partner stunts and formations; choreography and production of original routines.

49.107 SMALL CRAFT I (c 00.50) Development of basic skills in small craft handling. *Prerequisite:* permission of instructor.

49.108 SMALL CRAFT II (c 00.50) Continuation of 49.107. *Prerequisite:* 49.107 or permission of instructor. Red Cross Instructor's Certificate may be obtained.

49.110 BOWLING I (c 00.50) Development of basic skills in bowling.

49.111 BOWLING II (c 00.50) Continuation of 49.110. *Prerequisite:* 49.110 or equivalent experience in ten pin bowling.

49.120 KARATE I (c 00.50) Development of basic defensive skills of karate.

49.122 KARATE II (c 00.50) Continuation of 49.120 with emphasis upon karate as a sport. *Prerequisite:* 49.120 or permission of instructor.

49.124 WRESTLING (c 00.50) Development of wrestling skills.

49.140 FENCING I (c 00.50) Development of basic skills of foil fencing.

49.141 FENCING II (c 00.50) Continuation of 49.140 with emphasis upon competition. *Prerequisite:* 49.140 or permission of instructor.

49.150 GOLF I (c 00.50) Development of basic skills of golf.

49.151 GOLF II (c 00.50) Continuation of 49.150. With emphasis upon actual participation on the golf course. *Prerequisite:* 49.150 or prior instruction.

49.160 TRAMPOLINE AND FLOOR EXERCISE I (c 00.50) Development of basic skills of trampoline, tumbling and floor exercise.

49.161 TRAMPOLINE AND FLOOR EXERCISE II (c 00.50) Continuation of 49.160. *Prerequisite:* 49.160 or permission of instructor.

49.162 GYMNASTICS—APPARATUS I (c 00.50) Development of basic skills of gymnastic apparatus work.

49.163 GYMNASTICS—APPARATUS II (c 00.50) Continuation of 49.162. *Prerequisite:* 49.162 or permission of instructor.

- 49.170 RECREATIONAL ACTIVITIES (c 00.50)** Development of skills of selected individual, dual and team activities with emphasis upon seasonal sports. Content varies. May be repeated for credit.
- 49.171 HORSEBACK RIDING (c 00.50)** Development of equestrian skills. May be repeated for credit with permission of instructor.
- 49.174 FOLK AND SQUARE DANCE (c 00.50)** Development of skills and understanding of dances of various cultures including ethnic dances of this country.
- 49.180 TENNIS I (c 00.50)** Development of basic skills of tennis.
- 49.181 TENNIS II (c 00.50)** Continuation of 49.180. *Prerequisite:* 49.180 or permission of instructor.
- 49.182 TENNIS III (c 00.50)** Continuation of 49.181. For advanced players. *Prerequisite:* 49.181 or permission of instructor.
- 49.190 FITNESS WORKSHOP I (c 00.50)** Progression of cardio-vascular build-up and development of skills in a system of physical exercise for bodily control including aerobics and yoga.
- 49.191 FITNESS WORKSHOP II (c 00.50)** Continuation of 49.190. *Prerequisite:* 49.190 or permission of instructor.
- 49.195 WEIGHT TRAINING (c 00.50)** Development of weight training skills.

LECTURE COURSES

- 49.210 METHODS AND MATERIALS IN PHYSICAL EDUCATION (c 01.00)** Principles and techniques of instruction applicable to physical education at elementary and secondary school levels. Includes laboratory work.
- 49.211 TECHNIQUES OF HOCKEY/PHYSICAL CONDITIONING (c 00.50)** Development of skills, techniques and methods of teaching each activity.
- 49.212 TECHNIQUES OF SOCCER/VOLLEYBALL (c 00.50)** Development of skills, techniques and methods of teaching each sport, including rules and organization.
- 49.213 TECHNIQUES OF BASKETBALL/SOFTBALL (c 00.50)** Development of skills, techniques and methods of teaching each sport including rules and team organization.
- 49.214 TECHNIQUES OF GYMNASTICS/TRACK AND FIELD (c 00.50)** Development of skills, techniques and methods of teaching each activity.
- 49.215 METHODS OF TEACHING SWIMMING (c 00.50)** Development of skills, techniques and methods of teaching swimming and coaching. *Prerequisite:* permission of instructor.
- 49.216 TECHNIQUES OF FOOTBALL/WRESTLING (c 00.50)** Development of skills, techniques, and methods of teaching each sport including rules and team organization.
- 49.217 METHODS OF TEACHING INDIVIDUAL, DUAL AND RECREATIONAL ACTIVITIES (c 00.50)** Development of skills, techniques and methods of teaching individual and dual sports and recreational activities. *Prerequisite:* 49.210 or permission of department advisor.
- 49.218 TECHNIQUES OF OFFICIATING (c 00.50)** Rules and officiating techniques of selected sports. Supervised practice in officiating. May be repeated for credit.
- 49.219 TECHNIQUES OF BASKETBALL/BASEBALL (c 00.50)** Development of skills, techniques, and methods of teaching each sport including rules and team organization.
- 49.221 FOUNDATIONS AND HISTORY OF PHYSICAL EDUCATION AND SPORT (c 01.00)** Introduction to professions of health education, physical education and recreation. Historical growth and development of physical education and competitive sport.
- 49.301 WATER SAFETY (c 00.50)** Preparation for teaching swimming and diving. Techniques of aquatic safety leading to Red Cross Water Safety Instructor's Certificate. *Prerequisite:* Senior Life Saving.
- 49.310 ELEMENTARY SCHOOL RHYTHMIC ACTIVITIES (c 01.00)** Survey of materials and methods of teaching fundamental movement rhythms and singing games at elementary school level.
- 49.315 CARE AND PREVENTION OF ATHLETIC INJURIES (c 01.00)** Introduction to the basic concepts and techniques in the prevention, treatment and rehabilitation of sports injuries; implications for

conducting adapted physical education program at secondary school level. Practical application of first aid therapeutic measures.

49.324 PRINCIPLES AND PSYCHOLOGY OF COACHING (c 01.00) Principles and techniques of coaching athletic teams; emphasis on psychology of teaching and motivating athletes.

49.330 HEALTH AND SAFETY (c 01.00) Fundamentals of health education for prospective teacher.

49.335 ELEMENTARY SCHOOL GAMES (c 01.00) Survey and application of physical education instruction and movement exploration for elementary school children.

49.340 CAMPING AND OUTDOOR EDUCATION (c 01.00) Philosophical bases of camp instruction and outdoor education and implications for curriculum. Theory and practice of techniques for camping. Field trips and observations arranged. *Prerequisite:* permission of instructor.

49.350 SAILING AND SEAMANSHIP (c 01.00) Principles and techniques of sailing and seamanship with emphasis on special skills relating to navigation, small and large boat handling, environmental and marine protection, and use of public boating facilities.

49.390 INDEPENDENT READING COURSE IN PHYSICAL EDUCATION (c 00.25 through 02.00)*

49.421 ORGANIZATION AND ADMINISTRATION OF HEALTH, PHYSICAL EDUCATION AND ATHLETICS (c 01.00) Principles of organizing and administering health, physical education and athletic programs. Consideration of personnel, schedules, equipment, facilities, curriculum, and related problems.

49.424 KINESIOLOGY (c 01.00) Mechanical principles as they apply to performance of motor skills, and physiological changes as they occur in the body during and after activity.

49.425 PHYSIOLOGY OF EXERCISE (c 01.00) Study of physical and biochemical phenomena that are associated with exercise.

49.490 INDEPENDENT STUDY PROJECT IN PHYSICAL EDUCATION (c 00.25 through 02.00)*

Graduate and Advanced Undergraduate Courses

49.500 MEASUREMENT AND EVALUATION IN HEALTH AND PHYSICAL EDUCATION (s 03.00) Purposes and principles of measurement and evaluation in health and physical education. Survey of selected tests and basic statistical techniques for interpretation of results.

49.510 HEALTH EDUCATION (s 03.00) Survey and interpretation of current trends and thinking in health education.

49.520 CURRENT PROBLEMS, TRENDS AND RESEARCH IN PHYSICAL EDUCATION (s 03.00) Identification of current problems in the profession and a survey and interpretation of research and trends pertaining to them. Content will vary with each semester. May be repeated for credit.

49.530 CURRICULUM IN PHYSICAL EDUCATION (s 03.00) Principles and procedures of curriculum development in physical education.

49.550 RECREATION PROGRAMS (s 03.00) Survey of agencies and programs in field of recreation with attention to principles and techniques for conducting these programs.

49.560 PSYCHOLOGY OF SPORT (s 03.00) Investigation of behavioral patterns of people in a variety of athletic and physical activity settings.

49.565 SOCIOLOGY OF SPORT (s 03.00) Investigation of sport as a socio-cultural phenomenon.

49.570 ELEMENTARY PHYSICAL EDUCATION (c 03.00) Investigation of new and innovative methods and materials in teaching basic movement through motor, manipulative, and stability skills at the elementary school level.

49.590 INDEPENDENT READING COURSE IN PHYSICAL EDUCATION (s 01.00 through 06.00)*

Graduate Courses

49.601 WORKSHOP IN HEALTH, PHYSICAL EDUCATION AND RECREATION (s 03.00) Investigation of a specific timely topic in the area of health, physical education or recreation. Content will vary with each semester. May be repeated for credit.

* See description under "General Curriculum Information" in this publication.

49.610 PLANNING FACILITIES FOR HEALTH, PHYSICAL EDUCATION AND RECREATION (s 03.00) Principles, criteria, and standards used in planning facilities for health, physical education and recreation.

49.620 PHILOSOPHY OF PHYSICAL EDUCATION (s 03.00) Exploration in depth of eclectic rationale of physical education.

49.690 INDEPENDENT STUDY PROJECT IN PHYSICAL EDUCATION (s 01.00 through 06.00)*

Physics

CHAIRMAN Mark Harrison

FULL-TIME FACULTY

Professor E. Callen, M. Harrison, H. Reiss, B. Sitterly (Emeritus), J. White

Associate Professor R. Berendzen, B. Chertok, R. Kay, H. Leidecker, R. Segnan, R. Waterhouse

Assistant Professor K. Cornell

Senior Research Assistant Z. Bay

FIELDS OF STUDY Solid and liquid state physics, thermal and statistical physics, atomic and quantum electronics, nuclear and particle physics, advanced quantum theory, general relativity, acoustics, societal science, innovative teaching methods.

Undergraduate Degree Programs

ADMISSION TO THE MAJOR The department counsels freshmen and transfer students. Formal admission to the major requires a 2.00 average and approval of the department undergraduate advisor.

COMPOSITION AND READING REQUIREMENT See "Undergraduate Degree Requirements" in this publication.

LANGUAGE REQUIREMENT See opening section under "College of Arts and Sciences" in this publication.

Bachelor of Arts

MAJOR IN PHYSICS

The purpose of this program is to acquaint the student with the societal implications of science, and physics in particular, and to prepare him for an informed and creative role in this important area of human concern.

DEPARTMENTAL REQUIREMENTS At least three courses from the following are required: 51.203 Science and Public Policy; 51.200 Physics as Natural Philosophy; 51.204 Population, Resources, and the Energy Crisis; 30.240 Arms Control, Politics, and Science. Either 51.210 Concepts in Physics or 51.220-.221 Introduction to Physics I, II.

Three additional courses at the xx.300 level or above chosen in consultation with the student's advisor and planned as a coherent program of study. One course may be taken in 51.490 Independent Study Project in Societal Science.

Tool and Related Courses Appropriate courses in mathematics, chemistry, and biology to be planned with the advisor according to the educational and vocational goals of the student.

ELECTIVES To complete a minimum of thirty-two course units.

Bachelor of Science

MAJOR IN PHYSICS

DEPARTMENTAL REQUIREMENTS Students planning to major in physics should register for 51.220-.221, Introduction to Physics I and II, and their laboratories at the earliest opportunity. Prior or concurrent registration in 41.110 Fundamentals of Mathematics, and 41.111 Calculus I, is

* See description under "General Curriculum Information" in this publication.

required. It is urged that 51.220-.221 be taken in the freshman year if possible and the sophomore year at the latest.

While 51.220-.221, Introduction to Physics I and II, is the customary starting point for physics majors, students with good high school preparation can begin with 51.330 Basic Concepts in Mechanics, and 41.222 Calculus II.

Major Courses (1) Required: 51.220-.221 Introduction to Physics I and II; 51.222-.223 Open Laboratory in Physics I and II; 51.330 Basic Concepts in Mechanics; 51.350 Basic Concepts in Electromagnetism; 51.370 Basic Concepts in Modern Physics; 51.452 Advanced Laboratory; 51.560 Basic Concepts in Thermal Physics, or 51.565 Basic Concepts in Statistical Physics. (2) Recommended for Graduate Preparation: 51.500-.501 Introduction to Mathematical Physics I and II; 51.530 Mechanics; 51.551 Electromagnetism; 51.570 Introduction to Quantum Mechanics; 51.572 Atomic Physics; 51.573 Nuclear Particle Physics; 51.574 Introduction to Solid State Physics

Related Courses Recommended: 15.120-.130 General Chemistry I and II with laboratories, or high school chemistry.

Tool Courses 41.110 Fundamentals of Mathematics; 41.111 Calculus I; 41.222-.223 Calculus II and III; 41.321 Differential Equations (recommended)

ELECTIVES To complete a minimum of thirty-two course units.

Graduate Degree Programs

Candidates for graduate degrees in all academic units must meet the requirements set forth in the University Minimum Standards for Graduate Studies. The requirements appearing below are those of this department and do not relieve degree candidates from compliance with the minimum standards.

Master of Science

MAJOR IN PHYSICS

GENERAL REQUIREMENTS A minimum of thirty hours of approved graduate work is required, including six hours of 51.795 or 51.797 research.

CORE COURSES It is expected that the student will advance his knowledge of basic theory in the core areas of physics. Accordingly, the student will take many of the following core courses at an early date: 51.560, 51.565 Statistical and Thermal Physics; 51.631 Theoretical Mechanics; 51.651 Electromagnetic Theory; 51.670-.671 Quantum Mechanics I and II.

While it is desirable to take all of these core courses inasmuch as they provide a conceptual foundation and are accordingly strongly represented on the comprehensive examinations, the student's program should also include such specialized courses as are required by the research training program. The appropriate balance of core courses and specialized courses should be worked out with the student's advisor as described below.

RESEARCH TRAINING PROGRAM In the first semester of this program, the student is required to select an advisor with whom he will plan a program of specialized courses to complement the appropriate core courses given above. The student then continues his research training by subsequently registering for six hours of either 51.795 Research Training Seminar or 51.797 Master's Thesis Seminar.

WRITTEN COMPREHENSIVE EXAMINATIONS Two approved fields: 51.001 Mechanics, Thermal and Statistical Physics, Mathematical Physics; 51.002 Electromagnetism, Quantum Mechanics and Applications.

Doctor of Philosophy

MAJOR IN PHYSICS

QUALIFYING EXAMINATION The student is required to take a qualifying examination before completion of the first twenty-four credit hours after entrance into the doctoral program. The qualifying examination is the above M.S. comprehensive examination and may be waived by M.S. students who score a grade of Distinction. A master's comprehensive taken at The American University and passed with distinction will satisfy the requirement for the qualifying examination.

CORE COURSES The student is expected to have completed 51.631 Theoretical Mechanics, 51.651 Electromagnetic Theory, and 51.670-.671 Quantum Mechanics I and II.

DISSERTATION Upon completion of the qualifying examination the student and his advisor are expected to assemble a dissertation committee to assist in the planning of his doctoral program. While the doctoral program is principally concerned with the development of creative scientists, the program is flexibly arranged to accommodate students who are primarily interested in undergraduate teaching, administration, or other interdisciplinary studies. The dissertation is to be twelve to twenty-four hours.

TOOL OF RESEARCH Proficiency in a language, computer science, or other tool deemed appropriate by the student's dissertation committee.

ORAL EXAMINATIONS The student is required to take two oral examinations, one in defense of his dissertation and one to cover the basic material relevant to the area of research.

COMPREHENSIVE EXAMINATIONS Four approved examinations: 51.005, 51.006, 51.007, 51.008 (oral) are required. The qualifying examination (51.001 and 51.002) may be substituted for 51.005. These examinations cover the subject area of the dissertation and material relevant to the area of research.

Courses of Instruction

Undergraduate Courses

51.101 SOUND, LIGHT, AND THE ARTS (c 01.00) Sound and hearing; music: traditional, electronic and rock; light and vision; color, images, eye and the camera; recording and reproduction of sound and light; the broadcast media. *Prerequisite:* a lively curiosity.

51.102 SCIENCE, CULTURE, AND LIFE STYLES (c 01.00) Impact of science on society and life styles since time of Industrial Revolution. Includes: Darwin, Marx, Freud and the changes in man's sense of identity. Technological change, urbanization and alienation. Advance into atomic age; nuclear war and nihilism. Case for balance and the adaption of science to man rather than reverse. *Prerequisite:* a lively concern.

51.104 SOUND AND MUSIC (c 01.00) Nature of sound, musical sound and noise, hearing and the ear, noise pollution, traditional musical instruments, electronic music, hi-fi stereo and quadraphonic. *Prerequisite:* a lively curiosity.

51.106 ASTRONOMY (c 01.00) How big is the universe? What is in it? How old is it and how long will it endure? Is there (other) intelligent life in space? Non-mathematical discussion of relativity theory, normal stars, pulsars, black holes. Space travel and contact among galactic civilizations. *Prerequisite:* a lively curiosity.

51.200 PHYSICS AS NATURAL PHILOSOPHY (c 01.00) World view of the scientist: look at galaxies, atoms, and life the way they are understood today. Vital ideas of physics, chemistry, and biology, together with ideas about ideas—how we know things. *Prerequisite:* a lively curiosity.

51.203 SCIENCE AND PUBLIC AFFAIRS (c 01.00) Authoritarianism (religion and "communism") vs. science; Einstein, A-bombs, and NASA; population, pollution, and politics; public health, morals, birth control, abortion, artificial insemination, and eugenics; XXX, organ transplants, and drugs; electronic surveillance and rights of privacy; computers and data banks; traffic.

51.204 POPULATION, RESOURCES, AND THE ENERGY CRISIS (c 01.00) Population growth: models of population evolution; energy resources: fossil fuels, nuclear fission and fusion power, and solar energy; air and water resources; climate alterations planned and unplanned; food resources: the "green revolution," food from the sea, pesticides and fertilizers. *Prerequisite:* a lively concern.

51.210 CONCEPTS IN PHYSICS (c 01.00) Non-mathematical presentation of basic concepts of physics and related technological developments relevant to various areas of everyday life. *Prerequisite:* a lively curiosity.

51.220 INTRODUCTION TO PHYSICS I (c 01.00) Basic physical concepts in structure of matter and the macroscopic world; mechanics and electricity, atomic physics, waves and oscillations, molecules and heat. *Prerequisite:* 41.110, 41.111 recommended.

51.221 INTRODUCTION TO PHYSICS II (c 01.00) Basic physical concepts in structure of matter

and macroscopic world; electromagnetism, light, relativity, nuclear physics, structure of solids. *Prerequisites:* 51.220; 41.111.

51.222 OPEN LABORATORY IN PHYSICS I (c 00.50) Selected experiments to accompany 51.220. Experiments partially selected according to student's interest and performed weekly at a time convenient to student, during the open hours of the laboratory. *Prerequisite:* 51.220 or concurrent registration.

51.223 OPEN LABORATORY IN PHYSICS II (c 00.50) Selected experiments to accompany 51.221. Experiments partially selected according to student's interest and performed weekly at a time convenient to student, during the open hours of the laboratory. *Prerequisite:* 51.221 or concurrent registration.

51.312 NUCLEAR ENERGY (c 01.00) Need and the problem; nuclear power in year 2000; physical description of nuclear fission, fusion, and radioactivity; technology of reactors; radiation as environmental problem; prospects for controlled thermonuclear fusion reactors.

51.330 BASIC CONCEPTS IN MECHANICS (c 01.00) Vector analysis. Newton's laws and dynamics of a particle. Harmonic oscillator. Conservative systems. Gravitational forces and potential. Central fields and the motions of planets and satellites. *Prerequisites:* 51.221; either 41.111 or 41.222, or concurrent registration.

51.350 BASIC CONCEPTS IN ELECTROMAGNETISM (c 01.00) Electrostatics, potential theory, magnetic fields, Faraday and Ampere's laws, dielectric magnetic media, Maxwell's equations. *Prerequisite:* 51.330 or concurrent registration.

51.370 BASIC CONCEPTS IN MODERN PHYSICS (c 01.00) Electrons, protons, and structure of matter, a historic view; the Rutherford-Bohr atom, elements of quantum mechanics and its application to atomic, nuclear, and solid state physics. *Prerequisite:* 51.330.

51.390 INDEPENDENT READING COURSE IN PHYSICS (c 00.25 through 02.00)*

51.452 ADVANCED LABORATORY (c 01.00) Lectures and laboratory experience. Students will plan and complete experiments in electronics and other laboratory techniques that fit background and previous training. Course may be retaken for credit. *Prerequisite:* permission of instructor.

51.490 INDEPENDENT STUDY PROJECT IN PHYSICS (c 00.25 through 02.00)*

Graduate and Advanced Undergraduate Courses

51.500 INTRODUCTION TO MATHEMATICAL PHYSICS I (s 03.00) Curvilinear coordinates and tensor analysis, matrix theory; complex functions, contour integrals, and method of residues; method of Frobenius and special functions of mathematical physics. *Prerequisites:* 51.330, 51.350, 41.321.

51.501 INTRODUCTION TO MATHEMATICAL PHYSICS II (s 03.00) Sturm-Liouville theory, eigenfunction problem, Green's functions, partial differential equations of mathematical physics, Fourier series and transforms, integral equations, group theory. *Prerequisite:* 51.500.

51.530 MECHANICS (s 03.00) Newtonian dynamics; Hamilton's principle and Lagrange's equations; central force motion; rigid body dynamics; oscillating motion; Hamilton's equations and phase space; Hamilton-Jacobi equation. *Prerequisite:* 51.330.

51.531 WAVES, OSCILLATIONS, AND ACOUSTICS (s 03.00) Vibrating systems and dynamical analogies. Solutions of wave equation in various coordinate systems. Radiation, reflection, refraction and diffraction of waves. Transients and random noise. *Prerequisites:* 51.330, 41.321.

51.551 ELECTROMAGNETISM (s 03.00) Maxwell's equations and electromagnetic waves, reflection and refraction, interaction of light with matter, interference phenomena, Huygens-Kirchoff diffraction theory. Fresnel and Fraunhofer diffraction, gratings, optical instruments. *Prerequisite:* 51.350.

51.554 PRINCIPLES OF ELECTRONICS (s 03.00) Circuit analysis, circuit theorems, physics of vacuum tubes and transistors, equivalent circuits. Analysis of power supplies, amplifiers and oscillators. Modulation, demodulation and pulse circuits. *Prerequisite:* 51.350.

51.560 BASIC CONCEPTS IN THERMODYNAMICS (s 03.00) Thermal properties of gaseous and condensed phases of matter. Heat, temperature, the first and second laws of thermodynamics, reversibility, entropy, thermodynamic potentials, changes of phase, kinetic theory of gases. *Prerequisite:* 51.350.

* See description under "General Curriculum Information" in this publication.

51.565 BASIC CONCEPTS IN STATISTICAL PHYSICS (s 03.00) Statistical description of matter. Distribution functions, phase space, ensembles, statistical interpretation of thermodynamics, effects of quantization, Maxwell-Boltzman, Fermi-Dirac, and Bose-Einstein statistics.

51.570 INTRODUCTION TO QUANTUM MECHANICS (s 03.00) Wave mechanics; Schrodinger equation; potential barriers and potential wells; harmonic oscillator; operators; eigenfunctions; eigenvalues; degeneracies; angular momentum; hydrogen atom. *Prerequisite:* 51.370.

51.572 ATOMIC PHYSICS (s 03.00) Review of elementary quantum mechanics, time independent and time dependent perturbation theory, magnetic moments, spin, identical particles, multi-electron atoms, transition rates and selection rules, and collision theory. *Prerequisite:* 51.570.

51.573 NUCLEAR PARTICLE PHYSICS (s 03.00) Systematic presentation of physics of nuclei and nucleon and their interactions. Includes the two-nucleon force, systematics of stable nuclei, radioactivity, and the fundamental interactions. *Prerequisite:* 51.570.

51.574 INTRODUCTION TO SOLID STATE PHYSICS (s 03.00) Crystallography, lattices, thermal properties of solids, free electron theory of metals, band theory of solids, conductivity of metals, insulators and semiconductors, dielectric and magnetic properties, superconductors. *Prerequisite:* 51.570.

51.590 INDEPENDENT READING COURSE IN PHYSICS (s 01.00 through 06.00)*

Graduate Courses

51.631 THEORETICAL MECHANICS (s 03.00) Elasticity, fluid mechanics and acoustics, relativistic mechanics, Hamiltonian mechanics and canonical transformations, Hamilton-Jacobi theory, Lagrangian and Hamiltonian densities. *Prerequisite:* 51.630.

51.651 ELECTROMAGNETIC THEORY (s 03.00) Relativistic formulation of fields and potentials, Lienard-Wiechert potentials, dispersion, scattering, diffraction and physical optics. *Prerequisite:* 51.650.

51.670 QUANTUM MECHANICS I (s 03.00) Experimental background to quantum mechanics, Schrodinger equation, eigenfunctions and eigenvalues, one-dimensional problems; WKB approximations; general principles of wave mechanics; central potentials, hydrogen atom, scattering. *Prerequisites:* 51.501; 51.572 or concurrent registration.

51.671 QUANTUM MECHANICS II (s 03.00) General formalism of quantum theory; angular momentum and spin; identical particles; stationary perturbations, time-dependent perturbation theory, variational method. *Prerequisite:* 51.670.

51.690 INDEPENDENT STUDY PROJECT IN PHYSICS (s 01.00 through 06.00)*

51.710 SOLID STATE PHYSICS I (s 03.00) Lattice periodicity, Bloch's theorem, lattice vibrations, energy bands, Fermi statistics. Pauli paramagnetism, Hartree and Hartree-Fock equations, screening, plasma oscillations, dielectric function, impurity states. *Prerequisites:* 51.560, 51.573, 51.671.

51.711 SOLID STATE PHYSICS II (s 03.00) Group theory, Boltzman equation, electrical conductivity, Hall effect, magneto-resistance, de Haas-van Alphen oscillations, magnetism, superconductivity. *Prerequisite:* 51.710.

51.712 SOLID STATE PHYSICS III (s 03.00) Second quantization; magnetism; superconductivity; many-body methods; equations of motion, Green's functions, diagrammatic methods, Fermi liquids. *Prerequisite:* 51.711.

51.720 ADVANCED QUANTUM MECHANICS I (s 03.00) Lorentz group; Dirac and Klein-Gordon equation, Lorentz covariance; S-matrix, propagator theory, Feynman diagrams; applications; formal theory of scattering. *Prerequisite:* 51.671.

51.721 ADVANCED QUANTUM MECHANICS II (s 03.00) Lagrangian field theory; quantization of free fields, interactions; S-matrix theory, covariant perturbation theory, applications to quantum electrodynamics and meson problems; dispersion relations; renormalization. *Prerequisite:* 51.720.

51.724 NUCLEAR THEORY I (s 03.00) Invariants, the deuteron, nucleon-nucleon problem, effective-range theory, nucleon-electron interaction, nucleon-nucleus interactions at low and high energies, and electromagnetic interaction including isotopic spin. *Prerequisites:* 51.573, 51.671.

* See description under "General Curriculum Information" in this publication.

51.725 NUCLEAR THEORY II (s 03.00) Nuclear shell model, many body theory of nuclei with correlations, Hartree-Fock equation and quasi-particles, collective nuclear motion, nuclear reactions including U- and R-matrix methods and pion physics. *Prerequisite:* 51.724.

51.727 FLUCTUATIONS AND ORDER NEAR CRITICAL POINTS (s 03.00) Onset of long range ordering and macroscopic fluctuations in fluids, magnets, superconductors, etc. General theory of equilibrium and transport properties near phase transitions. *Prerequisites:* 51.651, 51.661 or permission of instructor.

51.728 MODERN ATOMIC PHYSICS AND QUANTUM ELECTRONICS (s 03.00) Width and shape of spectral lines, electromagnetic interaction, Lamb shift, Einstein A and B coefficients. Multipole radiation, Born, Beta, and Ochur approximations. Radiation trapping. *Prerequisites:* 51.573, 51.671.

51.731 THEORETICAL ACOUSTICS (s 03.00) Mathematical theory of waves and vibrations. Boundary value problems in radiation, diffraction and scattering, perturbation and variational methods. *Prerequisites:* 51.501, 51.631.

51.770 ELEMENTARY PARTICLE PHYSICS (s 03.00) Mass spectra of the baryons, mesons and leptons; properties such as spin, isospin, parity, G-parity, strangeness, etc; strong, electromagnetic, and weak interactions; classification schemes; unitary symmetry. *Prerequisite:* 51.721.

51.771 HIGH ENERGY PHYSICS (s 03.00) High energy elementary particle interactions, quantum field theory, symmetries, and S-matrix theory; strong interactions, pion-nucleon dispersion relations, partial wave amplitudes, electromagnetic form factors; weak interactions, beta decay, PCT, strange particle decays. *Prerequisite:* 51.721.

51.772 SPECIAL TOPICS IN NUCLEAR AND PARTICLE PHYSICS (s 01.00) Nucleon and nuclear structure through electron scattering, meson exchange effects in few-nucleon systems, the eight-fold way, Regge poles, duality, quarks, and partons. *Prerequisite:* permission of instructor.

51.780 RESEARCH SEMINAR IN PHYSICS (s 03.00 through 06.00) Various topics in advanced physics with contents selected according to need. May be repeated for credit. *Prerequisite:* permission of instructor.

51.795 RESEARCH TRAINING SEMINAR (s 03.00 through 06.00) May be repeated for credit. *Prerequisite:* 51.601.

51.797 MASTER'S THESIS SEMINAR (s 01.00 through 06.00)

51.799 DOCTORAL DISSERTATION SEMINAR (s 01.00 through 06.00)

Pre-Professional Programs

Pre-professional programs are offered in engineering, medicine, dentistry, physical therapy, law, social work, and theology. A student interested in one of these fields should consult the Associate Dean for Undergraduate Studies for academic counseling and for assignment of an advisor representing the special field of interest.

Engineering

Since many students studying in the fields of mathematics, physics, chemistry, biology, and distributed science are potentially engineering students, The American University has established cooperative five-year programs with the School of Engineering and Applied Science, Washington University, St. Louis, Missouri, and with the College of Engineering, University of Maryland.

Students spend three years on The American University campus, concentrating in one of the major fields in the College of Arts and Sciences. Students must work very closely with a faculty advisor and seek counsel from the Department of Mathematics and Statistics, the science departments, or the dean's office. If the designated official at The American University recommends the student, there is guaranteed admission to the engineering program after the completion of the junior year. After a satisfactory fourth year at the cooperating engineering school, the bachelor's degree is awarded by The American University. The fifth year provides for the completion of a second major in one of the engineering fields.

COOPERATIVE ENGINEERING PROGRAM, WASHINGTON UNIVERSITY

Transfer Requirements The following courses should be taken prior to entering the Sever Institute of Technology of the School of Engineering and Applied Science in order to complete a Bachelor

of Science in engineering in two years: (1) sixty semester hours of transferrable college credit with a minimum grade point average of B— (3.00 on a 4.00 scale); courses, with grades below C do not transfer; (2) two courses of English composition; (3) calculus through differential equations; (4) physics in a two course sequence employing calculus, including laboratory; (5) chemistry in a two course sequence, including laboratory; (6) at least eighteen semester hours of humanities and social sciences; at least nine hours in one department, including one area of concentration at the junior or senior level; (7) one course of computer programming (not required of electrical engineers); (8) a two course sequence in organic chemistry (required only for chemical engineering majors).

If the one upper level humanities or social sciences course has not been completed, there will be some elective opportunities in each major curriculum during the last two years.

All curricula are recognized and accredited by the Engineers Council for Professional Development except that of applied mathematics and computer science which is not recognized as an engineering area and hence not included in the accreditation.

Students may also plan for additional combined degree programs, such as B.A.-B.S.-M.S. and B.A.-B.S.-M.B.A., by allowing six years for such programs.

DUAL DEGREE PLAN, UNIVERSITY OF MARYLAND

Admission to the College of Engineering of the University of Maryland is guaranteed the Dual Degree student who has (1) completed the recommended Dual Degree program at The American University with a cumulative grade point average of 2.00 or better and (2) is recommended by the designated official at The American University.

Students who enter the University of Maryland in the Dual Degree program will have all credit which is applicable to The American University degree transferred to the College of Engineering. Students at The American University are advised that eight course units (thirty semester hours) with grades of C (2.00) or better from the College of Engineering, University of Maryland, will be acceptable on transfer to fulfill The American University undergraduate requirements.

Students in the Dual Degree program must complete satisfactorily the following courses during the first three years at The American University in order to be able to complete requirements for an engineering degree in two years: (1) one year of general chemistry with laboratory; (2) two or three years of mathematics, including calculus and differential equations; (3) two years of physics, including a year of general physics with laboratory and more in-depth study in mechanics and in electromagnetism or thermodynamics; (4) one course in computer programming (5) two courses in English composition; (6) at least five courses in humanities and social sciences. Students who wish to major in chemical engineering should also include a year of organic chemistry.

Pre-Medical and Pre-Dental

The Association of American Medical Colleges (AAMC) publishes an *Admissions Requirement Handbook* on pre-medical programs and the requirements for admission to AAMC approved medical schools. Students are urged to study a copy of this publication which may be ordered through the Association of American Medical Colleges, 1 DuPont Circle, N.W., Washington, D.C., 20036.

The basic pre-medical pattern applies to pre-dental students as well as to others interested in veterinary medicine and related fields. The professional schools require a minimum of three years of undergraduate studies and strongly recommend completion of the bachelor's degree.

A pre-medical or pre-dental program may be carried out in connection with a major course of study in any discipline of the student's choosing. The core course requirements include two semesters of general chemistry with laboratory, two semesters of organic chemistry with laboratory, two semesters of general biology with laboratory, two semesters of introductory physics with laboratory, and mathematics through the calculus level.

It is strongly recommended that the student take all of the above courses during his first two years of study. In this way, he is better prepared to take the Medical College Admission Test (MCAT) at the end of his second year of college or at the beginning of the third year. Medical schools take note of the sequence and timing of courses taken in the pre-medical program. They look with skepticism on programs which delay important course work such as a sophomore level physics course or organic chemistry in the senior year of study. Further, the closer together the core material is taken, the more organized the student can be in taking the MCAT tests.

The student often finds that after the first two years he has developed a point of view and direction about his education which may have been lacking in his freshman year. With two years of college remaining, and all of the pre-medical requirements completed, he is better able to plan his remaining

education and channel it in the direction of his newly developed interests. Many students do not select a major until the end of their sophomore year for precisely this reason.

In order to help students visualize the pre-medical course of study, the recommended program for the first two years is given below.

Freshman Year (1) Fall Semester: 09.101 General Biology I; 15.120 General Chemistry I; 15.121 General Chemistry I Laboratory; 23.100 Composition and Reading I; 41.100 Finite Mathematics. (Students adequately prepared to take 41.101 Applied Calculus or 41.111 Calculus I are advised to substitute one of these for 41.100 Finite Mathematics. Consult advisor for selection of appropriate mathematics courses.) (2) Spring Semester: 09.102 General Biology II; 15.130 General Chemistry II; 15.131 General Chemistry II Laboratory; 23.101 Composition and Reading II; 41.101 Applied Calculus I. (Students taking either 41.101 Applied Calculus or 41.111 Calculus I would take either 41.102 Applied Calculus II or 41.222 Calculus II in the Spring.)

Sophomore Year (1) Fall Semester: 15.310 Organic Chemistry I; 15.312 Organic Chemistry I Laboratory; 51.220 Introduction to Physics I; 51.222 Open Laboratory in Physics I; electives. (2) Spring Semester: 15.320 Organic Chemistry II; 15.322 Organic Chemistry II Laboratory; 51.221 Introduction to Physics II; 51.223 Open Laboratory in Physics II; electives. Electives should be chosen in consultation with the advisor.

The course work for the junior and senior years should be selected with an advisor from the student's major department. Whatever the major field, it is suggested that the following additional courses be taken as electives, as past experience indicates that they are beneficial to students as preparation for their work in medical or dental school: 15.560-.561 Biochemistry I and II; 09.356 Genetics; 09.541 Animal Histology; 57.110 Behavior Principles.

Physical Therapy

Because upper level courses in physical therapy are not offered by the University, it is expected that the student will transfer at the end of the sophomore year to a school having the required curriculum.

Pre-Law

There is no prescribed major for a student aspiring to this profession but, whatever the choice of major, it is recommended that the student undergird his major program with a broad distribution of courses in mathematics, natural sciences, social sciences, and the humanities.

Courses recommended by the law schools include accounting, English (23.200 Advanced Writing Workshop at The American University), economics, mathematics, in fact, any courses demanding analytical thinking. Past experience indicates that some students have found 60.100 Introduction to Logic, 69.202 Basic Statistics, and 10.201 Business Law to be helpful.

The Law School Admission Test (LSAT) is required of every applicant to law school. It is strongly recommended that this test be taken in July before the senior year. With this test date, the student can get an idea of his prospects and possibly retake the examination in October or, if necessary, make some alternative plans. Students may register through the University Counseling Center to take the test on The American University campus.

Only students with very high cumulative grade point averages and high LSAT scores should consider law school. If a student's grade point average (through his junior year) is less than 3.00 and his SAT scores are below 1200, he should be thinking of alternatives other than law school. The *Law School Admission Bulletin* answers many questions concerning law schools. This pre-law handbook is helpful in describing law schools and their requirements.

Social Work

Students interested in graduate degree programs in social work often major in one of the social sciences at the undergraduate level, with particular emphasis on sociology or psychology.

Pre-Theology

Pre-theological students are attracted to The American University because of the presence of the Wesley Theological Seminary on the campus, and the offerings of the Department of Philosophy and Religion. The religious activities under the direction of the Center for Campus Ministries assist in providing excellent conditions for pre-professional studies in religion.

Psychology

CHAIRMAN Elliott McGinnies

FULL-TIME FACULTY

Professor: J. J. Boren, C. B. Ferster, A. M. Leventhal, E. M. McGinnies, M. J. Rioch (Emeritus), S. J. Weiss

Associate Professor: A. J. Berman, J. J. Gray, B. M. McCarthy, B. M. Slotnick

Assistant Professor: R. K. Bufford, S. Culbertson, R. E. Love, S. R. Parker, A. Silberberg, C. S. Weissbrod

FIELDS OF STUDY At the undergraduate level, emphasis is on providing the student with a broad background in the major areas of psychology. The graduate program has two major foci: clinical, emphasizing behavioral and developmental approaches; experimental, emphasizing learning and conditioning, as well as social behavior.

Undergraduate Degree Program

The approach in the Psychology Department emphasizes the fundamentals in the theory of behavior, particularly from a behavioral and experimental point of view. All of the experimental faculty are engaged in active laboratory research supported substantially by federal grants. The clinical faculty are actively involved in field and clinical work.

In general we have two routes to a major: one route emphasizes behavioral psychology; the other is more traditional. There are enough courses for a student to take either route or a combination. Students will find much greater choice of courses by including a behavioral approach. Students are urged to sample from as many fields as possible.

Some Psychology Department courses are taught with an individualized method of instruction rather than by the traditional lecture-examination method. These are self-paced courses allowing the student to work at his own rate in conjunction with advanced students and faculty.

Where two or more sections of a particular course are offered, the separate sections may have different emphases. Also, as noted above, a self-paced format may be used in some courses. Students are advised to consult departmental listings during advanced or general registration for this information.

Bachelor of Arts

MAJOR IN PSYCHOLOGY

ADMISSION Formal admission to the major requires a 2.00 average and approval of the department chairman.

COMPOSITION AND READING REQUIREMENT See "Undergraduate Degree Requirements" in this publication.

LANGUAGE REQUIREMENT See opening section under "College of Arts and Sciences" in this publication.

DEPARTMENTAL REQUIREMENTS

Major Courses Psychology majors are required to satisfy the following requirements in order to be eligible for graduation: (1) Completion with a 2.00 or better of (a) one of the following: 57.100 Introductory Survey of Psychology; 57.110 Behavior Principles; CLEP examination in General Psychology (consult the Counseling Center); (b) 69.202 Basic Statistics (Psychology major section). (2) Completion with a 2.00 or better of a minimum of six additional courses from offerings of the department.

Students planning on pursuing graduate work in psychology should include the following courses in their undergraduate programs: 57.100 Introductory Survey of Psychology; 57.110 Behavior Principles; 57.250 Developmental Psychology; 57.330 Theories of Personality; 57.340 Social Psychology; 57.350 Abnormal Psychology; 57.480 Experimental Psychology; 57.502 History and Systems of Psychology; 69.518 Psychological Statistics.

In addition to psychology courses, such students are encouraged to complete four courses beyond the introductory level in one or more of the following related fields: anthropology, biology, linguistics, mathematics, philosophy, physics, and sociology.

Related Courses Students are strongly encouraged to consult their Psychology Department advisor regarding which departmental and outside courses will be most useful to them.

ELECTIVES To complete a minimum of thirty-two course units.

Graduate Degree Programs

Candidates for degrees in all academic units must meet the requirements set forth in the University Minimum Standards for Graduate Studies. The requirements appearing below are those of this department and do not relieve degree candidates from compliance with the minimum standards.

The goal of the graduate program in the Department of Psychology is to produce quality experimental, clinical, and social psychologists for research, university teaching, and professional clinical service. All students receive a solid foundation in experimental science. Very few courses are specifically required, thus allowing the student to individualize his program. The faculty-student ratio is low, fostering extensive faculty-student interaction and frequent individually-directed research.

Master of Arts, Doctor of Philosophy

MAJOR IN EXPERIMENTAL AND SOCIAL PSYCHOLOGY

PROGRAM DESCRIPTION The primary concern of the experimental and social psychology program is to help the student develop his abilities to become a productive research scientist and teacher. Therefore, the essential character of this graduate program aims to stimulate creative research and its effective communication. This is achieved through on-going research activity the student can use as a model, emphasis on the early acquisition of those research tools necessary for independent work, and close student-professor cooperation in the laboratory. The goals of the experimental program are coordinated in course content, research experience, and teaching practice.

ADMISSION See Graduate Admission under Admission Information. The master's and doctoral programs are continuous and integrated with an emphasis on productive research. Completion of the master's program at a level demonstrating doctoral potential will permit the student to continue toward that degree. Admission criteria are so devised as to make this progression likely. The student will be evaluated by the faculty and informed as to his progress at the end of each year of graduate study. Deadline for submission of all materials is February 15.

DEGREE REQUIREMENTS

Courses For the master's degree, students must complete eight graduate courses (twenty-four hours), plus six hours of master's thesis research, for a total of thirty semester hours. For the doctoral degree, students must take ten additional courses (thirty hours) and dissertation research for twelve hours; a total of seventy-two semester hours.

Experimental and social students must take Foundations of Experimental Research, Directed Research, two graduate statistics courses, and two courses which are clearly outside the area of experimental and social psychology. With the aid of his advisor, each student will select his other courses, according to his individual interests.

Master's Thesis The Master's Thesis is the student's opportunity to demonstrate competency in research as well as providing an important learning experience. Students must pass an oral examination concerning the content of the Master's Thesis.

See also the general requirements for all doctoral students as given in the Graduate Degree Requirements.

MAJOR IN CLINICAL PSYCHOLOGY

PROGRAM DESCRIPTION Clinical psychology students are prepared to assume a wide variety of roles (clinical research, clinical service, teaching) within the scientist-professional model. The importance of basic behavioral science and research methodology is stressed. The major theoretical orientation of the department is one which stresses an understanding of behavioral, psychoanalytic, and client-centered approaches to behavioral disorder and modification. Students are also provided with exposure to traditional diagnostic testing; six practica courses provide a variety of supervised experience in individual and group psychotherapy.

ADMISSION See Graduate Admission under Admission Information. The master's and doctoral programs are continuous and integrated with an emphasis on research and psychotherapy.

Completion of the master's program at a level demonstrating doctoral potential will permit the student to continue toward that degree. Admission criteria are so devised as to make this progression likely. The student will be evaluated by the faculty and informed as to his progress at the end of each year of graduate study. Deadline for submission of all materials is February 15.

DEGREE REQUIREMENTS

Courses Students must complete eighteen graduate courses (fifty-four credits). Master's thesis research for six credit hours and doctoral dissertation research for twelve credit hours account for an additional eighteen hours, for the required total of seventy-two. A clinical student must take Experimental Foundations of Clinical Psychology, Practica I and II, two graduate statistics courses of his choice, and two courses which are clearly outside the area of clinical psychology. With the aid of his advisor, each student will select his other courses, according to his individual interests. For example, students may combine courses in their individualized programs to emphasize clinical research, behavior modification or traditional approaches to clinical practice.

Master's Thesis The master's thesis is the student's opportunity to demonstrate competency in research as well as providing an important learning experience. Students must pass an oral examination concerning the content of the master's thesis.

Pre-Doctoral Internship In his fourth year, the clinical student will serve an internship in an appropriate setting outside the University.

General Requirements for All Doctoral Students

EVALUATION FOR DOCTORAL CANDIDACY Before becoming a doctoral candidate, each student will be evaluated by the entire faculty with regard to the quality of the: (1) master's thesis; (2) course performance (at least a B average must be maintained in all courses, with no more than one C); (3) assistantship or practicum performance or both; (4) oral examination that would serve as a master's thesis defense and as fulfilling in part the qualifications for the doctoral candidacy.

THE TOOL REQUIREMENT Two tools are required but do not result in course credit required for degrees. The tool requirement is quite flexible and can be met in a variety of ways. (1) Demonstration of a knowledge of Russian or German, either by passing an examination given by the Language Department or by taking and passing a course in one of these languages. Other languages may be used for this requirement by special arrangement. (2) One formal course in Computer Programming or demonstration of mastery of a programming language. (3) One graduate course (related to the student's individual program) offered by other departments at The American University or by non-psychology departments of the Consortium of Universities. (4) One clinical institute which is approximately equal in time and difficulty to a full course. (5) Supervised tool training in other settings when approved by advisor and chairman.

COMPREHENSIVE EXAMINATIONS Each student will be required to complete four comprehensive examinations outlined by his advisor or other faculty members. These assignments are designed to be more educational and professional than conventional comprehensive examinations. They involve the student in the types of activities he will later engage in as a professional psychologist. At least one of the four comprehensives must be oral and at least two must be written.

DISSERTATION A written proposal of the dissertation is to be submitted to the dissertation committee by the middle of the second semester of the third year. The original proposal, or a revision thereof, should meet the requirements of the committee by the end of the second semester. This allows adequate time for the completion of a quality dissertation even if initial experimentation turns out to be exploratory in nature. The committee is composed of four members, including the chairman. In the event that a dissertation is interdisciplinary in nature, one of the committee members should be a representative of the pertinent outside area. These four members also constitute the dissertation oral committee. This examination is open to all members of the department, as well as the University in general, and constitutes the final evaluation of the doctoral candidate.

Approval of the dissertation by the committee represents the successful completion of the doctoral program, since all other University and departmental requirements will have been satisfied by the time of the dissertation defense.

STUDENTS ENTERING WITH AN M.A. IN PSYCHOLOGY Students who enter the program with an approved M.A. in psychology will be required to complete ten courses (thirty hours), two tools, four comprehensives, and twelve hours of doctoral dissertation research.

Courses of Instruction

Undergraduate Courses

57.100 INTRODUCTORY SURVEY OF PSYCHOLOGY (c 01.00) Survey of various fields of psychology with emphasis on research discoveries. Particular topical emphases and instructional procedures may vary for different sections; consult Psychology Department regarding this information. *This course, or 57.110 (or their equivalents) must be completed as a prerequisite for all other courses in the department.*

57.110 BEHAVIOR PRINCIPLES (c 01.00) Introduction to scientific study of the behavior of organisms. Emphasizes the general principles of experimental analysis of behavior such as reinforcement, punishment, stimulus control, and verbal behavior. Designed to facilitate dialogue between student and student as well as student and teacher concerning both learning of these principles and their applications to human behavior. Such issues as behavior modification, emotional illness, punishment and law, social behavior, as well as the social-philosophical issues surrounding the use of behavioral control are considered.

57.250 DEVELOPMENTAL PSYCHOLOGY (c 01.00) Introduction to development from infancy through adolescence, with emphasis on theory and research in normal development: genetics, growth and maturation; sensation and perception; motivation; cognitive and social functioning.

57.330 THEORIES OF PERSONALITY (c 01.00) Review of theories and research related to personality development. Issues covered include attachment during infancy, identification, moral development, social cognition, sex differences.

57.340 SOCIAL PSYCHOLOGY (c 01.00) Individual behavior as influenced by and demonstrated in group settings. Contemporary theory and research in such areas as leadership and obedience, opinion measurement, persuasion and attitude change, cooperation and competition.

57.350 ABNORMAL PSYCHOLOGY (c 01.00) Study of behavioral deviations.

57.390 INDEPENDENT READING COURSE IN PSYCHOLOGY (c 00.25 through 02.00)*

57.405 TEACHING SEMINAR (c 01.00) Applications of behavior principles to teaching. Experiential non-directively led seminar. Course combines the study of group process, principles of learning and general topics in education.

57.410 PSYCHOLOGICAL TESTS AND MEASURES (c 01.00) Theory of mental tests; validity, reliability and item analysis. Survey of representative tests of ability, personnel selection, aptitude, interests and personality. *Prerequisite:* 69.202

57.411 ADVANCED DEVELOPMENTAL PSYCHOLOGY (c 01.00) Contemporary view of modern concepts, theories and research of child development. *Prerequisite:* 57.250 or permission of instructor.

57.450 BEHAVIOR THERAPY WITH CHILDREN (c 01.00) Assessment and therapeutic intervention with behaviorally disturbed children. Behavioral techniques such as positive reinforcement, shaping, desensitization, and modeling are stressed. Short lectures and discussion. Each class member works intensively with a retarded and emotionally disturbed child.

57.460 CHILD REARING PRACTICES AND THE TRAINING OF PARENTS (c 01.00) Consideration and combination of approaches to rearing of normal children. Methods of treating disruptive, retarded, and institutionalized children will be covered. Students carry out a project during the term. *Prerequisites:* two courses in psychology, one of which should be 57.250 or equivalent.

57.480 EXPERIMENTAL PSYCHOLOGY (c 01.00) Data and research methods in core areas of psychology. Review of experimental design. Individual and group experiments. *Prerequisite:* 69.202.

57.490 INDEPENDENT STUDY PROJECT IN PSYCHOLOGY (c 00.25 through 02.00)*

57.497 ADVANCED TOPICS IN PSYCHOLOGY (c 01.00) Individual sections cover specific advanced topics in psychology. Topics offered vary from semester to semester. Each section an intensive course in a specialized area of psychology. Enrollment in each section limited. *Prerequisites:* junior/senior standing, three psychology courses, permission of instructor.

75.317 PARAPROFESSIONAL SERVICES: TRAINING AND APPLICATION (c 01.00) (s 03.00) Offers instruction and service in peer counseling and related research activities and includes training in

* See description under "General Curriculum Information" in this publication.

basic communication and counseling skills, followed by additional intensive training in one specialty area: Hotline, Companion Program, PreWithdrawal and Human Ecology Program, Small Group Communication Program, Research and Evaluation Program, and Learning to Learn Program. Open to students willing to be responsible for work on a particular campus service throughout the semester. Opportunities exist in research and evaluations of campus systems which cause students problems as well as in counseling of students. Part of the P.E.A.C.E. Program (Peer: Environmental Analysts, Counselors and Educators). *Prerequisites:* sophomore standing and permission slip available at P.E.A.C.E. office. Meets jointly with 75.617.

Graduate and Advanced Undergraduate Courses

57.501 PHYSIOLOGICAL PSYCHOLOGY (s 03.00) Anatomical and physiological substrata of behavior. *Prerequisite:* junior standing, two departmental courses and permission of instructor.

57.502 HISTORY AND SYSTEMS OF PSYCHOLOGY (s 03.00) Philosophical and scientific background of modern psychology and contemporary problems of theory construction. *Prerequisite:* one introductory course and senior standing.

57.503 SENSATION AND PERCEPTION (s 03.00) Sensory and complex perceptual processes discussed in light of contemporary theories in research. Knowledge of basic statistics desirable. *Prerequisites:* two departmental courses.

57.504 GROUP PROCESS (s 03.00) Concepts and theories about groups considered in relation to actual groups and organizations with which students involved. *Prerequisite:* junior standing and permission of instructor.

57.506 HUMAN SEXUAL BEHAVIOR (s 03.00) Course provides overview of various aspects of human sexual behavior including basic physiological knowledge, sex education, sexual myths, premarital and marital sexual behavior, homosexuality, pornography, etc. Emphasis on psychological aspects of sex and sexuality. *Prerequisite:* one introductory course.

57.507 CRISIS INTERVENTION: THEORY AND TECHNIQUE (s 03.00) Technique and methods of emergency intervention for acute behavioral disturbances (e.g. drug reactions, depression, suicide). Includes practicum experience for which screening and training are required. Theme topic of course changes each semester so can be taken for credit more than once.

57.508 FIELD OBSERVATION AND ANALYSIS OF THE BEHAVIOR OF THE MENTALLY ILL (s 03.00) Weekly period of observation and participation, under supervision, followed by seminar discussion of observations and experience. *Prerequisite:* 57.110.

57.510 LEARNING: PRINCIPLES AND HUMAN APPLICATIONS (s 03.00) Study of behavioral procedures discovered from laboratory research and application of these procedures to education, psychotherapy, and other problems in human affairs. *Prerequisites:* junior standing and two courses in psychology.

57.512 HUMAN LEARNING-VERBAL BEHAVIOR (s 03.00) Principles of learning applied to verbal behavior including consciousness, thinking, self-perception and use of behavioral framework for understanding linguistic approaches to language. *Prerequisite:* 57.110.

57.513 PSYCHOPHARMACOLOGY: THE EFFECTS OF DRUGS UPON BEHAVIOR (s 03.00) Basic principles of pharmacology, drug-behavior interactions, and the effects of prominent "psychotropic" drugs. While clinical findings considered, emphasis is on laboratory studies of various drugs. *Prerequisites:* two courses in psychology, one of which should be 57.110 or 57.510 or equivalent course in laboratory studies of behavior.

57.540 QUANTITATIVE MODELS OF BEHAVIOR (s 03.00) Review of efforts to bring mathematical methods to bear on psychological problems from nineteenth century to present. *Prerequisites:* 57.100 and 69.202.

57.590 INDEPENDENT READING COURSE IN PSYCHOLOGY (s 01.00 through 06.00)*

Graduate Courses

57.600 FOUNDATIONS OF EXPERIMENTAL RESEARCH (s 03.00) Experimental psychology emphasizing the fundamentals of experimental design; students carry out experiments during the term. *Prerequisite:* graduate standing in Psychology Department.

* See description under "General Curriculum Information" in this publication.

- 57.601 EXPERIMENTAL FOUNDATIONS OF CLINICAL PSYCHOLOGY (s 03.00)** General introduction to clinical psychology emphasizing its scientific roots and methods of clinical research. *Prerequisite:* graduate standing.
- 57.609 ETHICS AND PROFESSIONAL PRACTICES (s 03.00)** Deals with theoretical and conceptual questions as well as social problems in area of ethics and professional practice. Specifically, ethical standards, codes and legislation of psychologists and related professions and ethical problems of community mental health are examined.
- 57.610 THEORY OF AND INSTRUMENTATION IN THE BEHAVIORAL SCIENCES (s 03.00)** Practical experience in design and construction of electromechanical and electronic laboratory equipment. Limited to Psychology Department graduate students.
- 57.620 CONDITIONING AND LEARNING (s 03.00)** Advanced analysis of operations and principles developed through the systematic study of classical and operant conditioning. Seminar for advanced graduate students in psychology. Takes up selected topics primarily within the area of operant conditioning. *Prerequisites:* 57.600 and graduate standing in the department.
- 57.630 SYSTEMS OF PSYCHOTHERAPY (s 03.00)** Review of major psychotherapeutic schools through films, tapes, role playing, demonstrations, and discussion. *Prerequisite:* permission of instructor.
- 57.650 ASSESSMENT OF INTELLECTUAL FUNCTIONS (s 03.00)** Examination of representative individual tests and their theoretical bases and laboratory practice in administration, scoring, and interpretation of these tests. *Prerequisite:* permission of instructor.
- 57.651 PERSONALITY TESTING (s 03.00)** Study of representative personality tests and projective techniques: laboratory practice in administration, scoring and interpretation of these tests. *Prerequisite:* permission of instructor.
- 57.670 ADVANCED SOCIAL PSYCHOLOGY (s 03.00)** Psychological factors in human social behavior. Examination of research literature with emphasis on design and methodology. Consideration given to theoretical problems in social behavior as well as to current trends in experimentation. *Prerequisite:* permission of instructor.
- 57.690 INDEPENDENT STUDY PROJECT IN PSYCHOLOGY (s 01.00 through 06.00)***
- 57.691 PRACTICUM TRAINING I (s 03.00)** Practice in skills related to counseling-psychotherapy by systematic exposure to critical elements in interview situation through supervision and guided observational experience. *Prerequisite:* permission of instructor.
- 57.692 PRACTICUM TRAINING II (s 03.00)** Continuation of Practicum Training I.
- 57.693 PRACTICUM TRAINING III (s 03.00)** Supervision in individual and group psychotherapy from a psychodynamic point of view. *Prerequisite:* permission of the instructor.
- 57.694 PRACTICUM TRAINING IV (s 03.00)** Continuation of Practicum III.
- 57.695 BEHAVIOR THERAPY PRACTICUM (s 03.00)** Observation and supervision in individual behavior techniques. *Prerequisite:* permission of instructor.
- 57.698 DIRECTED RESEARCH (s 03.00 through 06.00)** Consult Psychology Department.
- 57.791 CLINICAL SEMINAR IN PSYCHOTHERAPY I (s 03.00)**
- 57.792 CLINICAL SEMINAR IN PSYCHOTHERAPY II (s 03.00)**
- 57.796 MASTER'S THESIS INDEPENDENT STUDY (s 03.00 through 06.00)** *Prerequisite:* Open to graduate students whose thesis proposal has been approved by department.
- 57.798 DOCTORAL DISSERTATION INDEPENDENT STUDY (s 06.00 through 12.00)** *Prerequisite:* Open to graduate students whose dissertation proposal has been approved by department.
- 75.617 PARA-PROFESSIONAL SERVICES: TRAINING AND APPLICATION (s 03.00)** See 75.317 for description.

* See description under "General Curriculum Information" in this publication.

Sociology

CHAIRMAN Karen Petersen

FULL-TIME FACULTY

Professor F. Lorimer (Emeritus), J. Scott, A. Van Der Slice (Emeritus)

Associate Professor M. Cantor, S. Farsoun, B. Kaplan, G. Mueller, D. Nasatir, K. Petersen

Assistant Professor E. Chow, R. David, P. Goldman, A. Lincoln, J. Siengenthaler

Instructor K. Kusterer

FIELDS OF STUDY Theory, methods, complex organizations, social stratification, political sociology, sociology of work and occupations, social psychology: sociological. The Department of Sociology is currently considering a special emphasis in social policy research and evaluation.

Undergraduate Degree Program

Bachelor of Arts, Bachelor of Science

MAJOR IN SOCIOLOGY

ADMISSION TO THE MAJOR The student who maintains a 2.00 grade point average (in a 4.00 system) may be admitted in the sophomore year after consultation with a department advisor. Students transferring to The American University after the sophomore year are encouraged to declare their major as soon as possible.

COMPOSITION AND READING REQUIREMENT See "Undergraduate Degree Requirements" in this publication.

LANGUAGE REQUIREMENT See opening section under "College of Arts and Sciences" in this publication.

DEPARTMENTAL REQUIREMENTS

Major Courses 65.200 Introduction to Sociology; 65.410 Classical Sociological Theory; 65.411 Contemporary Sociological Theory; 65.420-.421 Introduction to Social Research I and II (students are required to take 65.420-.421 in sequence from the same instructor); three additional courses at the xx.300 level or above.

Related Courses 69.202 Basic Statistics (recommended). Students will be counseled to take additional work in psychology, anthropology, economics, political science, history, philosophy, and statistics.

ELECTIVES To complete a minimum of thirty-two course units.

BACHELOR OF SCIENCE To be awarded a Bachelor of Science degree, students must select more than fifty percent of their courses from Sociology, or more than seventy-five percent of their courses from Sociology and related fields (psychology, anthropology, economics, political science, history, philosophy and statistics).

BACHELOR OF ARTS To be awarded a Bachelor of Arts degree, students must have at least twenty-five percent of the courses in areas other than sociology and related fields and cannot accrue more than 16 sociology courses.

UNDERGRADUATE MAJOR IN MASS COMMUNICATION AND SOCIETY The departments of Sociology and Communication jointly contribute to an undergraduate interdisciplinary major in Mass Communication and Society. See description under Interdisciplinary Studies in this publication.

Graduate Degree Programs

Candidates for graduate degrees in all academic units must meet the requirements set forth in the University Minimum Standards for Graduate Studies. The requirements appearing below are those of this department and do not relieve degree candidates from compliance with the minimum standards.

Three letters of recommendation (on forms supplied by the Office of Admissions, Financial Aid and Veterans Affairs, Programs and Services) must be included with the application for admission to

the department's graduate degree programs. Students who have completed or are currently enrolled in a degree program (B.A. or M.A.) in the department should secure these recommendations from departmental faculty members. Non-degree students taking courses in the department should secure at least two of the three recommendations from departmental faculty members. Departmental deadlines for graduate admission applications may differ from current University deadlines. For details, consult the department.

Master of Arts

MAJOR IN SOCIOLOGY

ADMISSION The following persons may be considered for admission to the M.A. program of the Department of Sociology:

(1) Persons who (a) meet general University requirements for admission to graduate study (see Graduate Admission under Admission Information), (b) maintained a 3.00 grade point average, based on a 4.00 system, in their undergraduate major, and (c) have completed at least twelve hours of approved sociology courses with a grade of B or better.

(2) Persons who (a) meet general University requirements (b) maintained a 3.00 grade point average, based on a 4.00 system, in their undergraduate major, but (c) have not completed the twelve hours with a grade of B or better of approved sociology courses may be admitted provisionally subject to completing twelve hours of sociology at the graduate level with a grade point average of better than B.

(3) In special cases, persons who do not meet the above requirements and persons who do not have the required background in sociology will be considered for admission only on the understanding that more than thirty hours of approved graduate level work in sociology and related fields may be required to attain the M.A. degree.

DEGREE REQUIREMENTS The degree of Master of Arts in Sociology is awarded upon satisfaction of the following requirements:

COURSE WORK Attainment of a grade point average of better than 3.00 in thirty hours of approved graduate level course work in sociology and related fields (such as anthropology, economics, history, psychology, political science, etc.), including a research requirement of six credit hours, 65.796 and 65.797. Twenty-four of these, including the research requirement, must be taken in residence at The American University. Six semester hours may, at the discretion of the department, be transferred from another accredited graduate school. Such transfer credit must be of 3.00 quality or better and appropriate to the degree program to which it is applied. Upon approval, a portion of the residence requirement may be satisfied in courses offered by the Consortium of Universities of the Washington Metropolitan Area.

PROGRAMS OF STUDY A minimum of three semester hours, 65.797 Master's Thesis Seminar is required. No other specific courses are required. However, the following program is recommended: 65.510 Concepts of Sociology, 65.610 History of Sociological Theory, 65.611 Issues in Modern Sociological Theory, 65.612-613 Social Research Methods I and II. A minimum of six hours in a substantive field of interest to the student selected in consultation with his advisor.

TOOLS OF RESEARCH This requirement may be satisfied by (1) satisfactory performance on a statistics tool examination designated by the Department of Sociology, or (2) passing a graduate level statistics course (three hours) approved by the department. If the student elects to take the statistics course, the three hours could contribute toward satisfaction of the thirty-hour course work requirement. Students interested in this option should consult the departmental office for details.

COMPREHENSIVE EXAMINATIONS Satisfactory performance on two written comprehensive examinations, one in sociological theory and one in methods of social research, within one year after completion of residence requirements. These examinations may, but need not, be taken in the same examination period. In special circumstances, the student may petition the chairman of the department to substitute another area of study for one of these examination areas.

It is strongly recommended that, in preparation for comprehensive examinations, the candidate develop detailed bibliographies for each examination field and discuss these bibliographies with faculty members responsible for examinations in each field one semester prior to the examinations.

THESIS For the Masters of Arts in Sociology candidates must write a thesis. The problem to be investigated will be delimited. The department recommends that no student collect original data for an M.A. thesis. Rather a thesis should be either a secondary analysis of already processed

data or a critical review of the literature relating to the problem proposed. The final chapter of the latter type thesis shall include a detailed proposal for further research on the problem.

All thesis proposals must be submitted to a committee of two members of the Sociology Department faculty chosen by the degree candidate in consultation with his or her faculty advisor. Proposals are prepared and processed in accordance with instructions obtainable in the department office. Final approval of all proposals is with the department chairman unless the chairman is a member of the candidate's M.A. thesis committee; in that case the chairman of the Graduate Advising Committee will have final approval.

After the M.A. thesis manuscript is completed, a date will be set for the final oral examination. Three copies of the manuscript must be in the hands of the chairman of the department at least two weeks before the examination. In the oral examination, the student may be questioned about the general field of his research. The thesis is not accepted by the department until (1) the student has passed the oral examination and (2) the thesis has been read and approved by the department chairman. If the chairman is a member of the candidate's committee, the chairman of the Graduate Advising Committee will have final approval.

In order to obtain the required six hours of research credit toward the degree, the candidate must pass (a) 65.797, M.A. Thesis Seminar (six hours) or (b) 65.797, Thesis Seminar (three hours), followed by 65.796, M.A. Thesis: Independent Study (three hours). Note: Students may not register for 65.797, M.A. Thesis Seminar, until they have completed twelve hours of graduate sociology with a grade of 3.00 or better.

TIMETABLE Ordinarily the M.A. degree has been obtained after two years of graduate study, but students with exceptional backgrounds may qualify in a shorter period. All work for the master's degree must be completed within three years from the date of the first registration in the graduate degree program. A student who has not completed requirements in this time must petition for re-admission if he wishes to continue and may be subject to the degree regulations in effect at the time of re-admission.

Doctor of Philosophy

MAJOR IN SOCIOLOGY

ADMISSION Consideration for direct admission to the doctoral program of the Department of Sociology is open only to persons who meet general University requirements for admission to graduate studies and who have completed twelve or more hours of approved graduate level course work in sociology with a grade point average of better than 3.00.

Students who are admitted to the M.A. program of the department may petition the department's Graduate Advising Committee for transfer to the Ph.D. program after completion of twelve hours of approved graduate level course work in the Department with a grade point average of better than 3.00. The recommendation of two departmental faculty members is required. After receiving departmental approval, the student must complete formal application for admission to the doctoral program through the Office of Admissions, Financial Aid and Veterans Affairs, Programs and Services.

DEGREE REQUIREMENTS The degree of Ph.D. in Sociology is awarded upon satisfaction of the following requirements.

QUALIFYING EXAMINATION A qualifying examination in sociological theory and methods of social research must be taken before completion of eighteen semester hours of course work in the Ph.D. program of the department. The qualifying examination will be administered twice yearly, once in the Fall and once in the Spring, at a time designated by the department. If a student does not pass the qualifying examination, he may be permitted one retake. Such retake must be completed during the next examination period. This requirement will be waived for students who have received the M.A. degree from this department within three years prior to their admission to the doctoral program.

COURSE WORK Attainment of a grade point average of better than 3.00 in sixty hours of approved graduate level course work in sociology and related fields and satisfactory completion of twelve hours of directed study on the dissertation (65.798 and 65.799) are required. A minimum of thirty hours of approved course work and twelve hours of directed study on the dissertation must be completed in residence after the student has attained doctoral standing in the department. Upon approval, a portion of the residence requirement may be satisfied in courses offered by the Consortium of Universities of the Washington Metropolitan Area.

For students who complete their entire graduate program in Sociology at The American University, the requirement is the equivalent of seventy-two semester hours of graduate work which may consist of forty-eight to sixty hours of approved course work in sociology and related fields, completed with a grade point average of better than 3.00 and twelve to twenty-four hours of directed study on the dissertation (65.798 and 65.799).

For students admitted with a master's degree in Sociology earned elsewhere, the requirement is at least thirty hours of approved course work in sociology and related fields, completed with a grade point average of better than 3.00, and twelve hours of directed study on the dissertation (65.798 and 65.799), exclusive of any work taken at The American University prior to application to the doctoral program.

Students admitted without a master's degree in Sociology must first attain doctoral standing (i.e., complete thirty hours of approved graduate level work in sociology and related fields with an average of better than 3.00) and then must complete a minimum of thirty hours of approved course work in sociology and related fields, with a grade point average of better than 3.00, and twelve hours of directed study on the dissertation (65.798 and 65.799).

RECOMMENDED PROGRAM OF STUDY A minimum of twelve hours of directed study on the dissertation, including three but no more than six hours of 65.799 Doctoral Dissertation Seminar is required. No other specific courses are required. It is, however, recommended that the candidate take at least nine hours of course work related to each of his four comprehensive fields. In this regard, the student is urged to consult with his graduate advisor.

TOOLS OF RESEARCH Before submitting a proposal for a dissertation, the candidate must demonstrate proficiency in: (1) Any modern language approved by the department, and (2) Statistics for social research.

Satisfaction of the language tool requires passing a language examination designed to test the candidate's reading knowledge of the language. Semester hours in language courses taken to achieve the level of proficiency required to meet the tools requirement in language may not be counted toward satisfaction of the sixty hours of graduate course work. However, credit received in other graduate level language courses may contribute to this requirement if the course is approved by the department as relevant to the candidate's doctoral program.

The statistics tool may be satisfied through a proficiency examination designated by the department or by completing satisfactorily six hours of graduate work in statistics approved by the department. If the student elects to take the statistics courses, the six hours may, contingent on departmental approval, contribute toward satisfaction of the sixty hours of graduate course work requirement.

COMPREHENSIVE EXAMINATIONS Satisfactory performance on four comprehensive examinations, one in sociological theory, one in methods of social research, and two in elective fields, selected in consultation with one graduate advisor and approved by the department is required. At least two must be taken within one year after completion of residence requirements and all four must be taken within two calendar years after completion of residence requirements. In accordance with these regulations, students may, but need not, take more than one comprehensive examination during the same examination period. At least one of the four comprehensives must be an oral examination.

Candidates who receive distinction from two of three readers on The American University M.A. comprehensive examinations may be excused from the applicable Ph.D. comprehensive examination, providing the examination was taken within three years of the Ph.D. comprehensive examination date.

The comprehensive examination is designed to test the broad general knowledge of the candidate and his ability to discuss intelligently and professionally basic issues in the field. This obviously cannot be gained from taking course work alone, but must come out of a background of wide reading of the literature and creative thinking and research in the field. It is strongly recommended that, in preparation for comprehensive examinations, the candidate develop detailed bibliographies for each examination field and discuss these bibliographies with faculty members responsible for the examination in each field at least one semester prior to the examination date.

GRADUATE COMPREHENSIVE FIELDS (1) Core Fields: Sociological Theory; Methods of Social Research. (2) Specialized Fields: Complex Organizations; Social Stratification; Political Sociology; Social Psychology; Sociological; Sociology of Work and Occupations.

Subject to departmental approval, the candidate may offer as one of his two elective fields a special area not in the above listing. This approval will depend in large part on the current faculty capability for directing study and research in the field.

DISSERTATION Capping the requirements for achieving the Doctor of Philosophy in Sociology is the dissertation, together with the required oral examination of the dissertation in which the candidate may be questioned over the general field of his research. Normally, the candidate must have completed all academic requirements for the degree before the oral examination is held.

All dissertation proposals must be submitted to a committee of four members (at least three of whom must be department members) chosen by the degree candidate in consultation with his faculty advisor. No person without the doctorate can serve on this committee. Proposals are prepared and processed in accordance with instructions obtainable in the department office.

THE ABD STATUS Candidates for the doctorate in sociology who have completed all requirements for that degree except the dissertation (the All-But-Dissertation status) and who entered the doctoral program without a master's degree in sociology may be awarded the Master of Arts in Sociology.

TIMETABLE Ordinarily the Ph.D. degree has been obtained after four to five years of full-time graduate study, but students with exceptional backgrounds may qualify in a shorter period. All work for the doctorate must be completed within five years from the date of the first registration as a doctoral student. However, the student is permitted seven years if he enters a doctoral program directly from a bachelor's degree. A student who has not completed requirements in the time limits specified must petition for re-admission if he wishes to continue and may be subject to the degree regulations in effect at the time of re-admission.

Courses of Instruction

Undergraduate Courses

65.200 INTRODUCTION TO SOCIOLOGY (c 01.00) *65.200 is a general prerequisite to all xx.300 and xx.400 level sociology courses.* Fundamental characteristics of social relationships. Culture, personality, population and ecology, social institutions and processes, cultural change.

65.221 MARRIAGE AND FAMILY LIVING (c 01.00) Recent changes in American family; modern dating, mate-selection, engagement, early marital adjustment, communication, money, working wife, sex, and in-law problems. Not open to first semester freshmen.

65.340 THE FAMILY (c 01.00) Varying forms and functions of family organization in different societies. Evolution of American family patterns. Family relations and personality formation. Contemporary social changes influencing family life.

65.345 AMERICAN SOCIETY (c 01.00) Analysis of contemporary American social institutions. American social system in historical perspective, value systems, ethnic composition, formal and informal structures.

65.346 COMPARATIVE SOCIAL SYSTEMS (c 01.00) Comparative analysis of contemporary societies, social institutions, value systems, formal and informal organizations, integration and cohesiveness, relationships with other societies.

65.347 RACE AND ETHNIC RELATIONS (c 01.00) Sociological examination of relationships between and within racial and ethnic groups; analysis of social causes of prejudice and discrimination.

65.348 POSITION OF WOMEN IN THE SOCIAL ORDER (c 01.00) Location and description of women in population. Nature and extent of prejudice and discrimination against women. Impact and significance of female equality upon social order.

65.350, 65.351 SOCIOLOGY OF THE AFRO-AMERICAN I AND II (c 01.00) (c 01.00) Examinations of racism in Europe. Process of Afro-American's assimilation into U.S. culture. Negro institutions, business, leadership, education, literature, music, migration, poverty, discrimination, demand for equality. 65.350 is prerequisite to 65.351.

65.352 HUMAN ECOLOGY (c 01.00) Relation of environment to distribution of population and to social structure and culture.

65.355 SOCIOLOGY OF URBAN YOUTH (c 01.00) Centers on the life styles and the role of youth in the urban community. Individual and societal dilemmas revolving around population characteristics, family forms, labor market, schooling, mass media, and bilingual, ethnic and/or behavioral subcultures discussed in terms of sociological and educational theories and research.

65.360 INTRODUCTION TO SOCIAL CHANGE (c 01.00) Analysis of the causes, processes and consequences of social change. Critical examination of theories of social change in the context of comprehensive analysis.

- 65.361 DEVIANCE AND SOCIAL CONTROL (c 01.00)** Analysis of social problems created by technical and cultural change. Theories of deviance systematically analyzed in relationship to societal control.
- 65.367 COLLECTIVE BEHAVIOR (c 01.00)** Analysis of crowd, mass, public behavior. Relationship to social movements of modern times. Role of leadership in various types of collective behavior. Factors, processes in emergence of social order.
- 65.370 SOCIAL INTERACTION (c 01.00)** Sociological perspective of the interrelationship between individual and group. Socialization roles in small and complex organizations, mass communication and social movements.
- 65.390 INDEPENDENT READING COURSE IN SOCIOLOGY (c 00.25 through 02.00)***
- 65.410 CLASSICAL SOCIOLOGICAL THEORY (c 01.00)** Historical background of theories, concepts, and methods of sociology; emergence and characteristics of most significant sociological systems.
- 65.411 CONTEMPORARY SOCIOLOGICAL THEORY (c 01.00)** Systematic analysis of modern sociological theories and schools of thought. Logic and procedures of theory construction. *Prerequisite:* 65.410.
- 65.415 LAW AND THE SOCIAL ORDER (c 01.00)** Functions of law in society; social origins and development of political authority around human rights. Changing role of law in modern democratic state.
- 65.420 INTRODUCTION TO SOCIAL RESEARCH METHODS I (c 01.00)** Introduction to nature, methods, principles, and techniques of scientific social research. Critical review of types of investigations, with accent on field research.
- 65.421 INTRODUCTION TO SOCIAL RESEARCH METHODS II (c 01.00)** Continuation of Introduction to Social Research I. *Prerequisite:* 65.420.
- 65.441 INTRODUCTION TO SOCIAL STRATIFICATION (c 01.00)** Major theories and related empirical studies of stratification; sources and consequences of mobility; and relationship of stratification to life-style, political power and personality.
- 65.442 POLITICAL SOCIOLOGY (c 01.00)** Systematic analyses of contributions of classical sociological writers to theory and research in politics. Methods and techniques useful in examining political behavior and institutions.
- 65.445 CONTEMPORARY COMMUNITIES (c 01.00)** Analysis and comparison of social and political structures and ideologies of contemporary communities of the world, stressing American community types. Approaches to community research.
- 65.450 POPULATION (c 01.00)** Survey of world population trends. Introduction to methods of analysis. Determinants and consequences of variations in fertility, mortality, and migration.
- 65.451 SOCIAL INSTITUTIONS (c 01.00)** Social structure emphasizing the nature, functioning, integration of social institutions.
- 65.460 SOCIAL CONFLICT (c 01.00)** Sociological analysis of history, typology, structure, function and nature of social conflict.
- 65.468 SOCIAL PSYCHOLOGY OF INTER-GROUP TENSIONS (c 01.00)** Intergroup prejudice and its relation to other aspects of personality and social behavior. Recent research on the determinants of intergroup attitudes. Techniques for the reduction of intergroup tension.
- 65.490 INDEPENDENT STUDY PROJECT IN SOCIOLOGY (c 00.25 through 02.00)***

Graduate and Advanced Undergraduate Courses

- 65.510 CONCEPTS OF SOCIOLOGY (s 03.00)** Systematic survey, critical analysis of sociological concepts. Emphasis on theoretical systems.
- 65.580 SOCIOLOGY OF RELIGION (s 03.00)** Concepts, methods and techniques in sociological analysis of religion. Historical comparative and functional approaches to religion. Emphasis on European and American Christianity.
- 65.590 INDEPENDENT READING COURSE IN SOCIOLOGY (s 01.00 through 06.00)***

* See description under "General Curriculum Information" in this publication.

65.592 SOCIAL ASPECTS OF MASS COMMUNICATION (s 03.00) Communication of ideas in modern society. Special attention to current empirical research on mass media in relation to sociological theory.

65.595 INTRODUCTION TO SOCIAL PSYCHOLOGY (s 03.00) Survey of sociological perspective of study of interrelationship of person to group: concepts, theories, and methods. Consideration of socialization, attitudes and values, collective behavior and intergroup relations.

Graduate Courses

65.610 HISTORY OF SOCIOLOGICAL THEORY (s 03.00) Comparative study of major European and American schools of sociological theory in nineteenth and early twentieth centuries.

65.611 ISSUES IN MODERN SOCIOLOGICAL THEORY (s 03.00) Systematic analysis of modern sociological theories and major schools of social thought. International review of periodical literature on sociological theory.

65.612 SOCIAL RESEARCH METHODS I (s 03.00) Research procedures in sociology with emphasis on survey design, collection of quantitative data. *Prerequisite:* 69.202.

65.613 SOCIAL RESEARCH METHODS II (s 03.00) Research procedures in sociology with emphasis on analysis of quantitative data. *Prerequisite:* 65.612.

65.614 METHODOLOGY (s 03.00) Critical analysis of logical and methodological problems of social investigation. Theoretical orientation of logically distinct approaches to sociological research.

65.615 SOCIOLOGY OF LAW (s 03.00) Functions of law in society; social origins and development of political authority around human rights. Changing role of law in modern democratic state.

65.617 HISTORICAL SOCIOLOGY (s 03.00) Employment of sociological concepts in the study of historical processes. Principles and techniques for the analysis of documents and their relation to sociological research.

65.640 COMPLEX ORGANIZATIONS (s 03.00) Structure and functions of formal organizations. Critical review of empirical research.

65.641 STUDIES IN SOCIAL STRATIFICATION AND MOBILITY (s 03.00) Class, status and power relations in society. Caste, estate, social class, social mobility. Theories and empirical research findings of current importance.

65.642 SOCIOLOGY OF POLITICAL ACTION (s 03.00) Systematic analyses of contributions of classical sociological writers to theory and research in politics. Methods and techniques useful in examining political behavior and institutions.

65.644 SOCIOLOGY OF WORK AND OCCUPATIONS (s 03.00) Sociology of work relationships; using occupation as unit of analysis. Emphasis on process of professionalization, and on professional roles in complex organization.

65.645 SOCIOLOGY OF THE FAMILY (s 03.00) Analysis of current thinking and research in sociology of family. Focus on intra- and inter-societal variations in family and kinship patterns.

65.665 STUDIES IN THE ANALYSIS OF SOCIAL CHANGE (s 03.00) Systematic analysis of processes of social change; its sources, patterns, and consequences. Sociological theories and methods of inquiry into phenomena of social change.

65.690 INDEPENDENT STUDY PROJECT IN SOCIOLOGY (s 01.00 through 06.00)*

65.692 THEORIES IN SOCIAL PSYCHOLOGY (s 03.00) Analysis and criticism of selected theories dealing with the nature of human nature, personality, group influences and interaction. Consideration of symbolic interaction, role theory, Freudian theories, etc.

65.711 SEMINAR IN SOCIOLOGICAL THEORY (s 03.00) Intensive study of selected area or school of sociological thought. Emphasis on research in source materials. May be repeated for credit. *Prerequisite:* permission of instructor.

65.712 SEMINAR IN SOCIAL RESEARCH (s 03.00) Investigation of recently developed techniques in various areas of social sciences and their application to sociology. May be repeated for credit. *Prerequisite:* permission of instructor.

* See description under "General Curriculum Information" in this publication.

65.714 SEMINAR IN SOCIAL ORGANIZATION (s 03.00) Consideration of theoretical and methodological problems in field and preparation of related research reports. May be repeated for credit. *Prerequisite:* permission of instructor.

65.716 SEMINAR IN SOCIAL PSYCHOLOGY (s 03.00) Consideration of sociological aspects of recent theoretical and methodological advances in the field and preparation of related research reports. May be repeated for credit. *Prerequisite:* permission of instructor.

65.796 MASTER'S THESIS INDEPENDENT STUDY (s 03.00) Directed individual thesis research carried on under supervision of the student's thesis chairman. *Prerequisite:* open to graduate students whose thesis proposal has been approved by department.

65.797 MASTER'S THESIS SEMINAR (s 03.00) Intended primarily for students engaged in clarification of their research objectives and the development of suitable research proposal for M.A. thesis.

65.798 DOCTORAL DISSERTATION: INDEPENDENT STUDY (s 03.00) Directed individual dissertation research carried on under the supervision of the student's dissertation committee chairman. *Prerequisite:* open to graduate students whose dissertation proposal has been approved by the department.

65.799 DOCTORAL DISSERTATION SEMINAR (s 03.00) Intended primarily for students engaged in clarification of their research objectives and the development of suitable research proposals for a dissertation.

School of Business Administration

DEAN Herbert E. Striner

Assistant Dean for Master's Programs Percy L. Jones

Assistant Dean for Undergraduate Studies Francis J. Girard

FULL-TIME FACULTY

Professor C. I. Bartfeld, M. L. Fair (Emeritus), H. Glazer, J. E. Hampton, L. L. Karadbil, E. R. Lehman, H. Martyn (Emeritus), J. Owens, N. G. Photias (Emeritus), R. M. Sachs, M. Seldin, H. E. Striner, H. B. Wess (Emeritus)

Associate Professor G. R. Allen, D. R. Brenner, K. L. Burns, W. C. Dulin, R. Einhorn, R. H. Gorman, W. Halal, J. D. Johnson, J. Kokus Jr., M. P. Pujol, H. Rosenthal, J. H. Sood, R. Springer

Assistant Professor G. F. Bullmash, J. R. Butts, P. Cirafici, A. F. Gottlieb, D. C. Guy, S. H. Ivison, P. Jacoby, M. A. Mass, H. P. Schoch, J. C. Sharf

Instructor I. Beckhoefer, R. W. Kopprasch

PURPOSE The School of Business Administration prepares men and women for careers as executives and specialists in business and other complex organizations. The school concentrates on these functions: (1) to provide its students with a firm base of liberal education; (2) to present instruction in professional fields so that students understand the business decision making process and the function of areas of specialization; (3) to associate closely with other schools and colleges of the University to enrich the understanding of its students; (4) to develop in its students the ability to project their thinking into the future by seeing business not only in the present, but also in relation to the past; and (5) to have each student leave school with a coherent and ever-developing personal philosophy of business, an understanding of the ever-changing technological world in which one lives, and a firm awareness of one's social responsibility.

INSTRUCTION AND RESEARCH The school centers its activity around two themes: (1) the business person as planner, decision maker, implementer, and controller of operations in a business firm; and (2) the business person as an analyst of the social, economic, and political environment.

Undergraduate Degree Programs

ADMISSION See "Admission to Undergraduate Study" in this publication.

COMPOSITION AND READING REQUIREMENT See "Undergraduate Degree Regulations" in this publication.

Bachelor of Science in Business Administration

This degree requires a minimum of thirty-two course units with at least a C (2.00 on a 4.00 scale)

overall average and at least a C grade in each course in the major. The required courses are comprised of the following groups.

GENERAL STUDIES REQUIREMENTS Fifteen courses. General studies in basic areas of knowledge for broad, rounded education, and as foundations. Designed to strengthen basic skills, provide background of knowledge whereby students can move easily in the world of ideas, and increase appreciation of the values of our society. Students take two composition and reading courses, one computer course, two economics courses, one mathematics course, one psychology or sociology course, one statistic course, and seven non-business elective courses.

BUSINESS ADMINISTRATION REQUIREMENTS Five courses. These courses are required of all business students, and include one accounting course, one business law course, one corporate finance course, one marketing course, and one applications in management course (during the senior year).

MAJOR Four courses. The major, four related courses, provides limited study in selected functional areas of business. This major, like a major in any other academic unit in the University, is the student's exploration in-depth and shows his ability to master an integrated curriculum.

The student may use his electives to further intensify study of a specific major or to accomplish a double major.

AVAILABLE UNDERGRADUATE MAJORS The currently available undergraduate majors are of two kinds, those with an existing formal structure within the School of Business and those that are individually designed on an interdisciplinary basis.

School of Business Majors Accounting, Finance, Marketing, Personnel, Urban Development, Computer Systems (approved formal interdisciplinary), Business Economics (approved formal interdisciplinary).

Individual Interdisciplinary Majors In addition to the structured approved interdisciplinary majors noted above, University regulations provide that a student may propose a major built around a central theme that cuts across various disciplines. The major must be officially selected (or confirmed) before registration for the first session of the junior year. Forms must be acquired from and filed in the office of the Assistant Dean for Undergraduate Studies, and in the Office of the Registrar. Changing majors later than the beginning of the junior year may require additional courses.

ELECTIVES Eight courses. Four electives must be in either business administration, economics, or technology and administration. The other four may be selected from any area of the University.

ADVANCED STANDING (1) Freshmen: For details on advanced placement, see "Undergraduate Degree Requirements" in this publication. (2) Transfer students: In addition to acceptance of transfer credit from accredited schools, advanced standing is available to CPA's, Members of the Bar, and American Institute of Banking students. Consult the Assistant Dean for Undergraduate Studies for details.

RECOMMENDED PROGRAM FOR THE FIRST THREE SEMESTERS (1) First Semester: Composition and Reading I; mathematics; psychology or sociology; non-business elective. (2) Second Semester: Composition and Reading II; introduction to computing or statistics (both are required); economics; non-business elective. (3) Third Semester: business law; accounting; introduction to computing or statistics (both are required); non-business elective. The remaining five semesters would be based upon the student's degree major.

Institute for Housing and Urban Development Studies

The major goal of the institute's certificate programs is to improve the quality of housing and urban development decisions in an increasingly complex society. This goal is pursued by offering a group of courses intended for managerial and professional people already in the field or aspiring to responsible positions calling for the application of expert knowledge.

Undergraduate Certificate in Real Estate

This innovative program provides an integrated "package of courses" for those seeking competence in the field of real estate. Credit is applicable to University degree programs. The program consists

of (1) Foundation Courses: 19.100 Introduction to Economics; 11.470 Urban Development or 19.306 Money and Banking; 11.471 Housing and Social Control or 11.472 Residential Construction; 11.476 Real Estate Investment Strategy; (2) Real Estate and Urban Development Courses: 11.477 Real Estate Transactions; 11.572 Housing Low- and Moderate-Income Families or 11.571 Landlord-Tenant Relations; 11.578 Real Estate Law; 11.460 Institute on Property Management I or 11.563 Institute on Real Estate Appraisal Ia; (3) Internship: 11.592 Internship in Urban Real Estate Problems. Internships are arranged through the office of the Director, Institute for Housing and Urban Development Studies.

Graduate Certificate in Housing and Urban Development

This program offers a variety of courses specifically oriented to contemporary problems for the college graduate who wishes to increase proficiency in the field. A unique feature is the offering of internship credit for experience which relates the body of knowledge to real world situations.

ADMISSION REQUIREMENTS A bachelor's degree from an accredited institution.

The program consists of (1) Prerequisite Courses: 11.477 Real Estate Transactions; 11.578 Real Estate Law; 11.572 Housing Low- and Moderate-Income Families or 11.571 Landlord-Tenant Relations; 11.460 Institute on Property Management I or 11.563 Institute on Real Estate Appraisal Ia; (2) Advanced Courses: 11.685 Land Planning and Use; 11.684 Mortgage Banking; 11.683 Real Estate Market Analysis; 11.776 Seminar in Real Estate Administration or 11.778 Seminar in Land Planning and Use or 11.779 Seminar in Housing and Urban Development; 11.561 Institute on Property Management II and 11.566 Institute on Property Management IV, or 11.564 Institute on Real Estate Appraisal Ib and 11.565 Institute on Real Estate Appraisal II. (3) Internship: 11.592 Internship in Urban Real Estate Problems. Internships are arranged through the office of the Director, Institute for Housing and Urban Development Studies. Internship credit may be substituted for up to two courses, with the approval of the director or associate director of the institute.

Graduate Degree Programs

ADMISSION See Graduate Admission under Admission Information.

Application may be made for Fall, Spring, or Summer Sessions. The Graduate Management Admission Test (GMAT) scores must be provided. (Formerly ATGSB.)

If an applicant has missed the University deadline for admission to degree status, he may (1) request the School of Business Administration's permission to apply for admission to the College of Continuing Education in order to begin studies toward a graduate business degree and/or (2) apply for admission to degree status for the following session. No more than twelve hours of graduate courses may be transferred from non-degree status.

ADMISSIONS CRITERIA *GMAT*: All applicants must submit a valid (taken within last three years) GMAT score to be considered for admission. This test is used as an admissions criterion by the leading graduate schools of business administration. The test is offered in various locations. Applications should be received by Educational Testing Service no later than three weeks before date for examinations in U.S. and its territories or Canada. For candidates tested in other countries the registration deadline is five weeks before test.

The Bulletin of Information for Candidates is available from the Educational Testing Service, Box 966, Princeton, New Jersey 08540. The GMAT is *not* designed to test specific knowledge in business administration. It seeks to measure *aptitude* for, not knowledge of, business administration by seeing whether candidates can understand and use words and numbers and reason effectively. Normal undergraduate education should provide sufficient general knowledge to deal adequately with test questions.

Applicants for the Fall semester should take the test in January or March; for Spring, in July or November.

Normally, the admission committee seeks applicants with scores of 450 or better (scores range from 200 to 800).

Grade Average: University minimum standards require students to have achieved a 2.50 (on 4.00 scale) average in the last two years of undergraduate education and a 3.00 on all graduate work attempted. Exceptions to minimum standards are made in limited, exceptional circumstances.

Recommendations: Two letters of recommendation from former professors or from recent employers and evidence of professional attainment aid the admissions committee in actions on M.B.A. and M.S. applications.

International Students: Non-native speakers of English must submit a score for the Test of English as a Foreign Language (TOEFL). Scores in excess of 500 give indication of competency in English.

PERFORMANCE STANDARDS All students must maintain a minimum 3.00 (B) average in all courses attempted and a minimum 3.00 (B) average in all areas of concentration courses. If a student has not maintained a B average by the time of eligibility for advancement to candidacy, or if the average falls below B at any time thereafter, the student is subject to dismissal from the University.

RESIDENCE REQUIREMENTS (Minimum) Thirty hours of graduate courses must be completed with a grade average of at least B. Twenty-four of these hours must be completed in residence at The American University.

ADVANCEMENT TO CANDIDACY After fulfilling all conditions and obligations specified in individual Graduate Admission Notices and completion of at least fifteen, but no more than twenty-four hours in the School of Business Administration, a student must apply for advancement to candidacy. Students with advanced standing either by transfer of equivalent graduate work or by waiver examinations must apply before the sum of all their credits exceeds twenty-four hours.

Advancement to candidacy means admission to full standing if admitted on a provisional basis. It does NOT imply admission to comprehensive examinations.

COMPREHENSIVE EXAMINATIONS The field for comprehensive examination is formally designated by the student when applying for advancement to candidacy in accordance with the field options applicable to the student's degree program. However, the student is encouraged to select a field as early in his program as possible to facilitate proper course planning in consultation with the faculty advisor.

A comprehensive examination in the major field of study must be successfully completed.

Eligibility: A student must be advanced to candidacy in order to be eligible to take the comprehensive examinations. In addition, all courses in the degree program must be completed or in progress during the semester in which the examination is to be taken. The student must have the required grade average with no outstanding requirements such as "incomplete" grades.

Scheduling: The school's comprehensive examinations are administered during the fall, spring, and summer semesters. Applications and payment of the required fee for comprehensive examinations must be completed prior to the posted deadline. Final application date for students with comprehensive areas outside the school depend on the department administering the examination.

Retakes: If a student fails a comprehensive examination, the student may petition for a retake to be completed within one year. Only one retake is permitted.

ADVISORY RELATIONSHIPS Each master's degree student will consult with the Assistant Dean for Master's Programs for advice and assistance in his or her program. The student is additionally expected to work with an advisor in the comprehensive field area.

Appellate Procedures: The school has a faculty-student committee which hears appeals by students from decisions made by faculty or administrators concerning academic regulations. See the assistant dean for further information.

RE-ADMISSION A student who is not formally enrolled in the University for two consecutive semesters (summer excluded) must apply for readmission. Re-admission to a degree program may be granted once for a maximum period of three years in light of the requirements for the degree in effect at the time of readmission.

STATUTE OF LIMITATIONS All master's degree requirements are expected to be completed within three years from the date of first registration in the graduate program. If not completed within that period, the student must petition the Dean of the School of Business Administration for extension of the statute of limitations if he or she wishes to continue. Extensions are not automatic; the student must provide evidence that he or she has attempted to complete the degree within the allotted time. If the petition is approved, a new terminal completion deadline will be set which may not exceed three additional years.

Master of Business Administration

The M.B.A. program is designed to provide a professional education for persons aspiring to positions with administrative responsibility. The degree is management oriented and it also provides depth within a specific concentration.

Many of the students in the M.B.A. program hold full-time or part-time jobs in managerial positions in the greater Washington area. *The degree can also be obtained on a part-time basis attending only evening classes.*

DEGREE REQUIREMENTS The M.B.A. program consists of sixteen self-contained graduate courses. Present requirements are thirty-three hours in the core curriculum, twelve hours in an area of major concentration, and three hours in approved elective courses. Undergraduate work in business subjects is not a prerequisite.

PREPARATORY COMPETENCE A matriculated student with prior business education may petition for a waiver of specific M.B.A. core courses without examination. A student with course work or appropriate experience, which has not been judged acceptable for a direct waiver, may be allowed to demonstrate competence by a waiver examination.

Waiver examinations will be given in the Fall, Spring, and Summer Sessions. Applications for waiver examinations must be filed within six months after registration and must be taken within one year after such registration. Applicants will be notified of action taken and dates of examination.

CURRICULUM (1) Core Requirements: 10.603 Managerial Accounting; 10.604 Business in Its Social Environment; 10.605 Financial Management; 10.606 Managerial Statistics; 10.607 Quantitative Methods; 10.608 Behavior of Complex Organizations; 10.609 Human Behavior in Organizations; 10.612 Business Economics; 10.642 Managerial Economics; 11.601 Marketing Management; 10.755 Seminar in Management of Enterprise. (2) Area of Major Concentration: four courses selected as a "major." (3) Approved Electives: one course.

AREAS OF MAJOR CONCENTRATION AND COMPREHENSIVE EXAMINATION FIELDS The School of Business Administration offers the following major concentrations for comprehensive examinations in the M.B.A. program. (Students must consult with faculty specialists in the fields before beginning studies in these courses.)

Accounting (10.010) This field is designed to provide a technical and theoretical foundation at an advanced level for persons wishing a more thorough and comprehensive understanding of accounting than can be provided at the undergraduate level. An accepted candidate who does not have prior credit for undergraduate accounting courses will be granted an extension of statute of limitations to fulfill prerequisite accounting courses. The graduate program is as follows: (1) Two of the following three courses: 10.532 Advanced Income Taxes; 10.634 Systems Design and Installation; 10.639 Controllorship in Business. (2) In addition to the following required courses: 10.710 Contemporary Accounting Theory; 10.711 Seminar in Accounting Theory.

Business-Government Relations (10.015) This concentration is offered to students who have a desire to acquire the knowledge basic to an understanding of the interface between business and government. Areas covered include regulation and control of business, corporate public affairs, Washington affairs, and relationships with the legislative and executive branches. Major area courses include: 10.680 Regulation and Control of Business; 10.701 Seminar in Corporate Public Affairs; 10.705 Seminar in Current Business-Government Relations; 10.706 Seminar in Corporate-Government Policy.

Employee Relations (10.027) This field is concerned with the vital responsibility of all managers in the direction of development of human resources. While important to all managers, the employee relations specialist needs a comprehension of the human problems of the workplace and a familiarity with the theory and practice of personnel management and collective bargaining, (as provided by this area of concentration). Courses include: (1) Two of the following five courses: 10.692 Collective Bargaining and the Public Interest; 10.694 Seminar in Employee Training and Development; 10.695 Industrial Relations: The Legal Environment; 10.697 Labor Relations Management; 10.690 Independent Study. (2) In addition to the following required courses: 10.791 Seminar in Personnel and Manpower Management; 10.792 Seminar in Industrial Relations.

Finance (10.020) This field embraces the areas of corporate finance, investments, and commercial banking. The program is designed to prepare graduate students for employment in any of these areas. The four courses are: 10.665 Financial Statement Analysis; 10.667 Working Capital Management; 10.668 Advanced Investment Analysis; 10.671 Commercial Banking Policies.

International Business (10.023) This field studies management of private and public enterprises that operate across national frontiers. Besides the following four courses offered by the School of Business Administration, additional or alternative courses may be obtained, with permission, in the Department of Economics, the School of International Service, and other member universities in the Washington Consortium. The School of Business courses are: 11.627 Export/Import Manage-

ment; 11.628 International Marketing; 11.629 The Multinational Firm; 11.726 Seminar in International Business.

Managerial Economics (10.002) This field encompasses macro and microeconomic theories which pertain to the decisions of the firm, including demand and cost analysis, pricing, forecasting, and managerial economic planning and policy. The courses required are individually prescribed by the faculty.

Marketing (10.025) This field consists of marketing theory, concepts and principles, and the techniques of application. The four courses are: 11.602 Consumer Behavior; 11.603 Industrial and Consumer Markets; 11.604 Research for Marketing Management; 11.701 Seminar in Marketing Theory.

Operations Analysis (10.026) This program uses an interdisciplinary approach to the present areas of technology of management and presents a balance between specific quantitative-technical fields, management and related areas. The program is designed to integrate and synthesize the tools of management science and computers from the point of view of management. The major emphasis in this program is on preparing mature graduate students for positions of increased executive responsibility and leadership. Course requirements are flexible, with relevant courses selected from offerings within the University on the basis of their suitability to the individual student as determined in consultation with the faculty advisor. Three courses to be selected and 11.795 Seminar in Operations Analysis.

Real Estate (10.028) This field embraces the systems in which real estate and urban development decisions are made. It emphasizes the theories and applications of land use planning and development decisions, the financing of real estate and urban development, the tools of real estate analysis and the decision-making and urban management process. The courses required are: 11.684 Mortgage Banking; 11.685 Land Planning and Use; 11.778 Seminar in Housing and Urban Development or 11.779 Seminar in Land Planning and Use; 11.776 Seminar in Real Estate Administration.

Transportation (10.032) This field consists of theory principles, history, and business and regulatory practices in transportation, distribution and logistics. The required courses are: 12.661 Principles and Problems of Transportation; 12.662 Transportation Policy Administration; 12.665 Physical Distribution Management; 12.762 Seminar in Transportation.

ADDITIONAL FIELDS To satisfy the needs of students with special interests, special programs of major concentration may be arranged. The comprehensive field may be a business-related one offered by one of the other schools or colleges of The American University.

Master of Science

Master of Science degrees are designed for students who desire a professional degree with greater emphasis on an area of specialization than available in the M.B.A. management-oriented program. This degree emphasizes developing the perspective especially necessary to the executive function in an area of specialization.

DEGREE REQUIREMENTS The M.S. degrees in the School of Business Administration consist of self-contained graduate courses, with no undergraduate prerequisite course requirements. Present requirements are indicated under each M.S. degree offering.

PREPARATORY COMPETENCE For a student with no prior education in business, the M.S. programs consist of the semester hours indicated under each program.

A student with prior business education may petition for a waiver of an M.S. core course without examination. A student with course work or appropriate experience not acceptable for a direct waiver, may petition for a waiver examination.

If a student has had extensive preparatory competence, substitutions may be made in his or her program, provided he or she completes thirty graduate hours, of which twenty-four must be completed at The American University.

Waiver examinations will be given in the Fall, Spring, and Summer Sessions. Dates for application deadlines will be posted on the master's bulletin board outside Hamilton 102. Application for waiver examinations must be filed within six months after registration and must be taken within one year after registration. Applicants will be notified of action taken and dates of examination.

MAJOR IN BUSINESS-GOVERNMENT RELATIONS

The objective of this program is to provide a course of study in which students may prepare professionally with the practical knowledge needed to become business-government policy experts

in their organizations. (1) For persons preparing to enter the business environment, it provides the training necessary to begin work in the newly established and growing functions within the corporation dealing with governmental affairs. (2) For the student interested in a career in government, it provides the knowledge to function in those areas of government in which an understanding of the business-government relationship is essential to enlightened decision making. (3) For persons already engaged in a business or government career the program provides an opportunity to build upon the experience already acquired in order to broaden their perspective and business-government expertise.

CURRICULUM The program shown below offers (1) a management core, (2) an option middle phase to be designed by the student in conjunction with his advisor. This middle core is flexible and interdisciplinary allowing the student to choose work throughout the University which best fits his needs, and (3) a final phase of graduate problem-oriented seminars, work/study, and independent projects. The program consists of sixteen graduate courses (forty-eight semester hours).

PHASE I (Management Core) 10.553 Business-Government Relations; 10.603 Managerial Accounting; 10.604 Business in Its Social Environment; 10.605 Financial Management; 10.606 Managerial Statistics; 10.608 Behavior of Complex Organizations; 10.609 Human Behavior in Organizations; 10.642 Managerial Economics.

PHASE II (Illustrative Options) One area (option) to be chosen: (1) *Government Option*: 53.660 Political Institutions and Behavior; 53.672 Law of the Administrative Process; 53.651 The Legislative Process; 53.652 The National Executive; 10.680 Regulation and Control of Business: Theory and Practice. (2) *Public Relations Option*: 72.540 Principles of Public Relations; 72.541 Publicity Writing; 72.542 Promotional Campaigns; two approved major-related courses. (3) *Government Public Information Option*: 17.501 Legal Aspects of Communication; 17.503 Mass Media and Society; 17.544 Public Relations and Government; two approved major-related courses. (4) *Additional Options*: To satisfy the needs of students with special interests, special options may be arranged between the student and the advisor.

PHASE III (Business-Government) 10.701 Seminar in Corporate Public Affairs; 10.705 Seminar in Current Business-Government Relations Problems; 10.690 Independent Study Project.

MAJOR IN EMPLOYEE RELATIONS MANAGEMENT

This degree is designed for the student who plans on a career, or is now employed, as an employee relations specialist. It provides a broad, intense coverage of all aspects of the discipline, which is required for professional career performance and development.

CURRICULUM Forty-eight semester hours (equivalent of sixteen courses) (1) Core Requirements: 10.603 Managerial Accounting; 10.604 Business in Its Social Environment; 10.606 Managerial Statistics; 10.607 Quantitative Methods; 10.608 Behavior of Complex Organizations; 10.609 Human Behavior in Organizations; 10.612 Business Economics; 10.642 Managerial Economics. (2) Major Comprehensive Field: 10.692 Collective Bargaining and the Public Interest; 10.694 Seminar in Employee Training and Development; 10.695 Industrial Relations: The Legal Environment; 10.697 Labor Relations Management; 10.791 Seminar in Personnel Management; 10.795 Seminar in Manpower Management. (3) Electives (choose two of the following): 10.792 Seminar in Industrial Relations; 10.690 Independent Study Project; 54.614 Public Personnel; 54.616 Labor Relations in Public Employment; or any other major related xx.600 or xx.700 level course approved by the faculty advisor.

MAJOR IN REAL ESTATE AND URBAN DEVELOPMENT PLANNING

This field embraces the systems in which real estate and urban development decisions are made. It places emphasis on the theories and applications of land use management, the tools necessary to analyze real estate and urban development markets and investments, the financing of real estate and urban development, the methodology for collecting and producing real estate and urban development data, the methods of handling such data and the way decisions are or should be made in the field of real estate and urban development and management.

CURRICULUM Forty-eight semester hours (equivalent to sixteen courses): (1) Core Requirements: 10.603 Managerial Accounting; 10.605 Financial Management; 10.606 Managerial Statistics; 10.607 Quantitative Methods; 10.612 Business Economics; approved management elective. (2) Major Requirements: 11.578 Real Estate Law; 11.683 Real Estate Market Analysis; 11.684 Mortgage Banking; 11.685 Land Planning and Use; 11.776 Seminar in Real Estate Administration; 11.778 Seminar in Land Planning and Use; 11.779 Seminar in Housing and Urban Development; 54.680 The Urban Politics or 54.684 Urban Planning; 11.565 Real Estate Appraisal II or 11.572 Housing Low & Moderate Income Families; approved Major-related elective.

Courses of Instruction

Undergraduate Courses

10.001 STUDENT ORIENTATION (No course value) Required of all freshmen and transfer students with less than eight course units.

10.201 BUSINESS LAW (c 01.00) Scope of business law. Individual, business, legal relationship. Legal concepts, philosophy, and functions. Federal, state court systems. Survey coverage of contracts, sales, agency, business forms, property. Introduction to negotiable instruments.

10.206 INTRODUCTION TO FINANCIAL ACCOUNTING (c 01.00) Basic principles and underlying concepts. Assets, equities, fundamentals of income measurement, financial statements. Uses, limitations of financial data. Current reporting practices. Appraisal of accounting.

10.207 INTRODUCTION TO MANAGERIAL ACCOUNTING (c 01.00) Accounting with emphasis on needs of management and limitations of accounting data for purposes of planning and controlling business activities. *Prerequisite:* 10.206.

10.208 COST ACCOUNTING (c 01.00) Use of accounting data for planning, control and decision making. Basic concepts and techniques. Responsible accounting performance measurement. Standard cost and flexible budgets as management tool. Cost analysis for management planning and control, special decision-making. *Prerequisite:* 10.207.

10.256 MANAGEMENT OF ORGANIZATIONS (c 01.00) Survey of field of management intended to acquaint student with current management theories, research, and practice. Course content represents synthesis of quantitative and behavioral sciences providing broad framework of management. Main topics include history of management, organizational goals and responsibilities, models, decision theory, planning, control, organization, motivation, leadership, group behavior, conflict, and organizational change.

10.302 ADVANCED BUSINESS LAW (c 01.00) Specific in-depth coverage of functions, form and content of commercial paper. Law of real and personal property. Legal bibliography. In-depth study of legal requirements of business. Case research. *Prerequisite:* 10.201.

10.308 INTERMEDIATE ACCOUNTING (c 01.00) Nature, valuation of assets and equities; measurement of business income. Generally accepted accounting principles and procedures. Financial reports and analysis. *Prerequisites:* 10.207 or permission of accounting program.

10.309 ADVANCED ACCOUNTING (c 01.00) Consolidated financial statements. Partnership accounting, business organizations and business combinations. Estate, trusts, and other fiduciary accounting. *Prerequisite:* 10.410.

10.365 CORPORATION FINANCE (c 01.00) Basic course on corporate financial structure; sources, acquisition and management of short-term and long-term funds in both money and capital markets; money market instruments; valuation and analysis of corporate capital structure in terms of risk, control, and flexibility. *Prerequisite:* 10.206.

10.390 INDEPENDENT READING COURSE IN BUSINESS ADMINISTRATION (c 00.25 through 02.00)*

10.410 ACCOUNTING: READINGS AND PROBLEMS (c 01.00) Selected topics in financial accounting focusing on current issues. *Prerequisite:* 10.308 or permission of accounting program.

10.415 ACCOUNTING THEORY (c 01.00) Analysis and evaluation of current accounting issues relating to the nature, measurement, and reporting of financial condition and results of operations. Special attention to controversial areas relating to assets and equities. *Prerequisite:* 10.309.

10.421 AUDITING (c 01.00) Audit objectives. Framework of auditing standards. Basic auditing procedures, techniques. Nature and function of audit working papers. Tests and sampling in the auditing process. *Prerequisite:* 10.309.

10.431 FUNDAMENTALS OF INCOME TAX (c 01.00) Introduction to federal taxation relating to corporations, individuals and partnerships. *Prerequisite:* 10.206.

10.452 BUSINESS RESPONSIBILITY IN AMERICAN SOCIETY (c 01.00) Historical and contemporary role of American firm as a social, political and economic institution. Social responsibility of business to its publics. Heavy emphasis on student participation, cases. *Prerequisite:* junior standing.

* See description under "General Curriculum Information" in this publication.

10.455 QUANTITATIVE ANALYSIS (c 01.00) Mathematical tools necessary for solution of business problems under conditions of certainty and uncertainty. Introduction of concepts underlying decision-making. Emphasis upon understanding of modern techniques rather than technical proficiency. *Prerequisites:* all SBA requirements in economics, math, statistics, computers

10.458 APPLICATION IN MANAGEMENT (c 01.00) Provides problem-solving environment which is intended to integrate knowledge in functional areas of business, and to simulate immediate management experience. Various methods intended to simulate management environment may be employed, including use of case studies, computerized management games, and consultant roles with small business firms. *Prerequisite:* senior standing.

10.464 CAPITAL MARKETS (c 01.00) In-depth study of history, purposes, functions, and organization of the short-term money market and long-term capital market.

10.468 FINANCIAL DECISION MAKING (c 01.00) Financial management, including cost of capital, capital budgeting, working capital management, and long-term financing. Emphasis on both theoretical and applied techniques through discussion and case study viewed from both the corporate user of funds and investor as supplier. *Prerequisite:* 10.365.

10.469 INVESTMENT ANALYSIS (c 01.00) Basic securities analysis and selection. Investment objectives. Methods of appraising corporate equity and debt securities. Investment timing, Dow Theory, dollar cost averaging, formula planning. Analysis of market fluctuations. Sources of information. *Prerequisite:* 10.365.

10.490 INDEPENDENT STUDY PROJECT IN BUSINESS ADMINISTRATION (c 00.25 through 02.00)*

10.491 PRINCIPLES OF EMPLOYEE RELATIONS (c 01.00) Philosophy, operation of employee relations system in United States: principal economic, social, managerial factors involved in its operation in terms of management of personnel and labor management relations. *Prerequisite:* junior standing.

10.492 LABOR RELATIONS PRINCIPLES (c 01.00) Intensive analysis of the collective bargaining process, with emphasis on historical, legal, economic, social, and behavioral aspects of union-management relationships in both the private and public sector. *Prerequisite:* 10.491.

10.493 PERSONNEL MANAGEMENT OPERATIONS (c 01.00) Techniques generally utilized (including computer applications) in personnel budgeting, man-power control, recruitment, performance rating, wage and salary administration. *Prerequisites:* 10.491.

11.300 BASIC MARKETING (c 01.00) Role of marketing philosophy of modern business management; inter-relationships among marketing, production, transportation and total economy. With a macro-approach, emphasizes social and economic aspects of marketing, and identifies prevailing concepts, functions, institutions, and terminology. Explains relationships among consumers, business and government. *Prerequisite:* 19.100.

11.401 MARKETS AND BUYER BEHAVIOR (c 01.00) Nature and measurement of markets for consumer and industrial goods and services. Market segmentation and market targeting. Factors influencing purchasing decision. Consumerism. *Prerequisite:* 11.300.

11.402 MARKETING RESEARCH (c 01.00) Emphasis placed on underlying scientific principles and processes that make marketing research an applied science. Information collection, interpretation, and presentation for shaping marketing objectives, policies, and planning. Role of more effective marketing of goods and services. *Prerequisites:* 69.202 and 11.401.

11.403 MARKETING PROBLEMS (c 01.00) Role of marketing management in business. Practical applications of marketing thought and theory in decision-making for marketplace, in-depth analysis of marketing problems. *Prerequisite:* 11.402 or permission.

11.404 PRODUCT PLANNING AND PRICING (c 01.00) Product development planning. Marketing strategy in introducing new products and services. Pricing decisions and implementation in marketing of products. Role of demand determination in pricing policies. Pricing in free marketplace. Government and pricing policies. *Prerequisite:* 11.401.

11.405 DISTRIBUTION SYSTEMS (c 01.00) Examination of marketing managerial issues and problems in distribution through use of an integrated channel of distribution approach. Investigates problems involved in relation in trade channels for goods and services, and subsequent management

* See description under "General Curriculum Information" in this publication.

of those channels for optimum efficiency. Viewpoints of manufacturer, wholesaler, and retailer. *Prerequisite:* 11.300.

11.411 ADVERTISING PRINCIPLES (c 01.00) Major promotional operations which comprise firm's promotional "mix" including advertising, sales promotion, merchandising, public relations or institutional promotion, and personal selling; approached from analytical and managerial point of view. Emphasis directed to processes of formulation of promotional strategies and policies, development of integrated promotional programs, and evaluation of promotional efforts. *Prerequisite:* 11.300.

11.426 FUNDAMENTALS OF INTERNATIONAL BUSINESS (c 01.00) Survey of ever-changing nature, methods and extent of international business, and of various environments within which it operates; socio-cultural, economic, legal, political, and financial. Important trends and vital current issues are examined against relevant background information presented in texts and assigned readings. *Prerequisite:* 11.300.

11.460 INSTITUTE ON PROPERTY MANAGEMENT I (c 01.00) Management of commercial, residential property. Rental values, neighborhood analysis, tenant selection, leasing, tenant and owner relationships. Final examination may be substituted for regular examination for Course No. 1 of Institute of Real Estate Management.

11.461 INSTITUTE IN REAL ESTATE APPRAISAL VIII (c 00.50) Official Study Course VIII of American Institute of Real Estate Appraisers. Applied principles and techniques for valuation of single family residential properties. Basic terminology and concepts, case studies. *Prerequisite:* basic real estate experience.

11.470 URBAN DEVELOPMENT (c 01.00) Economic and other objectives in urban society. Community objectives and organization. Provision of public facilities through political process. Public welfare, private profit and business-government relations. Economic base and inter-industry analysis. City growth and structure. Applications of planning, programming and budgeting to management of privately owned real estate resources and to provision of public facilities. Relationship of urban problems to contemporary business.

11.471 HOUSING AND SOCIAL CONTROL (c 01.00) Housing goals, problems, and programs. Real estate ownership, interests, and social control. Limitation on private control by public authority and private control. Transfer of rights and encumbrances on rights. Use of private enterprises to meet housing needs. Operation of housing markets.

11.472 RESIDENTIAL CONSTRUCTION (c 01.00) Multi-family, single-family, and factory-built modular housing construction. Site selection, land planning, economic analysis, zoning, building codes, construction techniques and materials, management and financing.

11.476 REAL ESTATE INVESTMENT STRATEGY (c 01.00) Investment objectives, risks and rewards. Resource characteristics and administration. Development decision and analysis, mortgage finance, cost and availability of funds, location analysis, property analysis and valuation. *Prerequisites:* 11.471 and 11.472.

11.477 REAL ESTATE TRANSACTIONS (c 01.00) Principles, practices of listing, selling, title, transfer. Drawing documents. Contracts, deeds, financing, other instruments. Ownership rights, liens, taxes, assessments, other claims on real property.

11.495 MANAGEMENT OF LOW AND MODERATE INCOME HOUSING (c 01.00) Analysis of existing housing in community with emphasis on subsidized housing, followed by study of communications and human relations between landlord and tenants, maintenance of physical facilities and administrative processes. Official course of Institute of Real Estate Management.

12.462 TRANSPORTATION AND LOGISTICS DISTRIBUTION (c 01.00) Spatial relations; economics of transportation service, location of population and industry, scope and pattern of markets, factors and principles of transportation; factors in design of logistics system for a firm, industry location, and role of transportation, inventory control, warehousing, material handling, communication and order processing in design and operation of efficient logistics systems which provide total control in terms of time and cost to meet required service standards in distribution. *Prerequisite:* 11.300.

12.463 TRANSPORTATION POLICIES (c 01.00) Considers public policies in transportation; historical development of regulation; regulatory process. Public investment in transportation—railroads, highways, air facilities, waterways, rapid transit. Problems of local transportation.

12.465 PHYSICAL DISTRIBUTION (c 01.00) Control of physical distribution of products from origin of supplies to final distribution to consumer. Plant location theory, warehouse establishment and

use, inventory control, materials handling. Role of transportation in distribution. Case studies in business logistics.

Graduate and Advanced Undergraduate Courses

10.532 ADVANCED INCOME TAXES (s 03.00) Advanced aspects of particular interest to accountants, lawyers. Special problems of federal income taxes, including estates, trusts, corporate and partnership liquidations, distributions, reorganizations, special transactions. Federal gift, estate taxes. *Prerequisite:* 10.431 or permission of instructor.

10.553 BUSINESS-GOVERNMENT RELATIONS (s 03.00) Government impact on business decisions. Government regulations, control and promotion of business. Corporate political activity. Current and future issues in business-government relations. Guest lecturers. *Prerequisite:* permission of instructor.

10.590 INDEPENDENT READING COURSE IN BUSINESS ADMINISTRATION (s 01.00 through 06.00)*

11.561 INSTITUTE ON PROPERTY MANAGEMENT II (s 03.00) Advanced analysis of multi-unit apartments, office buildings, shopping centers. Legal tax, financing aspects. Regional analysis and urban redevelopment. Creative management. Final examination may be substituted for regular course examination for Course No. 2 of the Institute of Real Estate Management on payment of \$25 fee. *Prerequisite:* 11.460 or graduate standing.

11.563 INSTITUTE ON REAL ESTATE APPRAISAL IA (s 03.00) Official Study Course No. 1a of American Institute of Real Estate Appraisers. Nature of real estate value; basic principles, methods and techniques. Satisfactory grade accepted by Appraisal Institute in lieu of required examination No. 1a. *Prerequisite:* satisfactory completion of one real estate course or at least one year equivalent experience and permission of program director or graduate standing.

11.564 INSTITUTE ON REAL ESTATE APPRAISAL IB (s 03.00) Official Study Course No. 1b of American Institute of Real Estate Appraisers. Nature of the real estate value: income approach to value and capitalization. Satisfactory grade accepted by Appraisal Institute in lieu of required examination 1b. *Prerequisite:* 11.563 or passing AIREA Examination 1a.

11.565 INSTITUTE ON REAL ESTATE APPRAISAL II (s 03.00) Case study Course II of American Institute of Real Estate Appraisers. Urban properties: appraising procedures, capitalization techniques, case studies, problems. Credit applicable toward membership in Institute. *Prerequisite:* 11.563 and 11.564 or passing AIREA Examination 1a and 1b.

11.566 INSTITUTE ON PROPERTY MANAGEMENT IV (s 03.00) Advanced analysis of office building. Developing, leasing, and management. Feasibility studies. Financing. Leasing techniques. Tenant suite development. Parking. Remodeling. Final examination may be substituted for regular course examination for Course IV of the Institute of Real Estate Management on payment of \$25 fee. *Prerequisite:* 11.460 or graduate standing, or permission of Real Estate and Urban Development program.

11.571 LANDLORD-TENANT RELATIONS IN LOW AND MODERATE INCOME HOUSING (s 03.00) Study of quality and quantity of housing and total living environment of families of low and moderate income and of relationships among residents, owners, and managers.

11.572 HOUSING LOW AND MODERATE INCOME FAMILIES (s 03.00) National housing goals and needs. Federal low and moderate income housing program. Housing development process. Economic, social, legal, technological constraints. Roles of various decision makers.

11.578 REAL ESTATE LAW (s 03.00) Legal aspects of real estate transactions for non-lawyers. Acquisition, encumbrance, transfer. Rights, obligations of parties. Survey of law, analysis of cases.

11.592 INTERNSHIP IN URBAN AND REAL ESTATE PROBLEMS (s 01.00 through 06.00) By arrangement with Director or Associate Director.

Graduate Courses

10.603 MANAGERIAL ACCOUNTING (s 03.00) Fundamentals, with concentration on uses of accounting as tool of management. Designed to give understanding of strengths and limitations of accounting as means of providing information. Topics selected from spectrum of accounting which focus upon underlying conceptual framework, role of accounting as tool for planning and controlling

* See description under "General Curriculum Information" in this publication.

the activities of enterprise and usefulness and limitations of accounting data for evaluating results of operations.

10.604 BUSINESS IN ITS SOCIAL ENVIRONMENT (s 03.00) Analysis of the firm in its social setting. History of business in its social environment. Relationship of business to the social, political and economic philosophies, institutions and groups which comprise its environment. Impact of its environment upon the present and future status of the firm.

10.605 FINANCIAL MANAGEMENT (s 03.00) Rigorous examination of financial management theory viewed from both corporation as user of funds and investor as supplier of funds. Emphasis upon interdependency between security analysis and cost of funds to corporation; introduction to security analysis, cost of capital, capital budgeting, evaluation and selection of corporate assets, and portfolio problems for both the corporation and the investor. *Prerequisite:* 10.603.

10.606 MANAGERIAL STATISTICS (s 03.00) Systematic treatment of methods of analysis and inference applied to managerial problems; use of computers. Free use of supervised laboratory available to review basic mathematical material.

10.607 QUANTITATIVE METHODS (s 03.00) Introduction to quantitative methods of decision-making and operations research; mathematical models; decision theory; use of computers. Free use of supervised laboratory workshop available to review basic mathematical material. *Prerequisite:* 10.606 or equivalent.

10.608 BEHAVIOR OF COMPLEX ORGANIZATIONS (s 03.00) Covers that portion of organization theory which concerns behavior of organizations themselves. Main topics are organizational goals and effectiveness, effects of technology, formal and informal organizational structure, management-decision processes, communication systems, organizational planning, control systems, inter-group conflict, and future developments in organizations. Course is complement to 10.609.

10.609 HUMAN BEHAVIOR IN ORGANIZATIONS (s 03.00) Covers aspect of organization theory concerning behavior of *persons* in organized settings. Specific topics include personality, values, motivation, and role behavior of individuals; supervision, leadership, and authority in work groups; and the structure and processes of informal groups. In addition to a theoretical treatment of these issues, the class has opportunities to observe their own behavior through the use of experiential exercises. Recommended prior to 10.608.

10.612 BUSINESS ECONOMICS (s 03.00) Macro-economics analysis, study of determinants of national income, output, employment and price levels. Covers national income accounting and classical as well as Keynesian economic models. Fiscal and monetary policy.

10.634 SYSTEMS DESIGN AND INSTALLATION (s 03.00) Techniques of analyzing, designing accounting systems for effective managerial control. Adapting accounting procedures to organizations of various types and sizes. Demonstration of important machine methods. *Prerequisite:* 10.411 or permission of instructor.

10.639 CONTROLLERSHIP IN BUSINESS (s 03.00) Controller's functions. Emphasis on interpretation of accounting aspects of managerial problems, reporting. Role as staff member of management team. *Prerequisite:* 10.603.

10.642 MANAGERIAL ECONOMICS (s 03.00) Fundamental analytical tools of economics applicable to decision-making. Research of empirical and theoretical studies, evaluation of their application to economic analysis in management. *Prerequisite:* 10.612.

10.665 FINANCIAL STATEMENT ANALYSIS (s 03.00) Appraisal of prevailing techniques of statement analysis. Significance of "generally accepted accounting principles." Development of meaningful analytic methods from viewpoint of financial management. *Prerequisite:* 10.605.

10.667 WORKING CAPITAL MANAGEMENT (s 03.00) Managerial knowledge of money market from viewpoint of financial manager in meeting short-term requirements and investing temporarily excess idle funds; means of investing idle funds commensurate with risk and return; emphasis on techniques used in management of corporate, short-term investment portfolio. *Prerequisite:* 10.605.

10.668 ADVANCED INVESTMENT ANALYSIS (s 03.00) Critical evaluation of current methods of securities analysis and selection. Investment theories and timing. Portfolio construction and management. *Prerequisite:* 10.605.

10.671 COMMERCIAL BANKING POLICIES (s 03.00) Factors determining management policies, services offered by individual banks. Internal: capital resources, market development, profitability

of functions, relations to other banks. External: government regulation, economic conditions. For present and prospective bank officers. *Prerequisite:* 10.605.

10.680 REGULATION AND CONTROL OF BUSINESS: THEORY AND PRACTICE (s 03.00) Theory and practice of government regulation and control of business. Antitrust, administrative enforcement and rule making. Impact of regulation and control on decision-making. Future trends in regulation and control. *Prerequisite:* 10.604 or permission of instructor.

10.690 INDEPENDENT STUDY PROJECT IN BUSINESS ADMINISTRATION (s 01.00 through 06.00)*

10.692 COLLECTIVE BARGAINING AND THE PUBLIC INTEREST (s 03.00) Examination of classic and current theory of collective bargaining in terms of economic and political impact upon public interest. *Prerequisite:* permission of instructor.

10.694 SEMINAR IN EMPLOYEE TRAINING AND DEVELOPMENT (s 03.00) Analysis by individual or group research of current problems in employee development and training at all levels, with particular emphasis on middle management development. *Prerequisite:* permission of instructor.

10.695 INDUSTRIAL RELATIONS: THE LEGAL ENVIRONMENT (s 03.00) Survey of legal environment of the industrial relations system: the collective bargaining process in terms of governmental regulation. *Prerequisite:* permission of instructor.

10.697 LABOR RELATIONS MANAGEMENT (s 03.00) Examination, by case studies, selected readings of management philosophy, strategy, tactics in collective bargaining; management's legal rights, responsibilities and impact of collective bargaining on management functions and employee relations. *Prerequisite:* 10.695 or permission of instructor.

10.701 SEMINAR IN CORPORATE PUBLIC AFFAIRS (s 03.00) Corporation in its political environment. Corporate political/community problems. Mission of the public affairs department and program. Washington and State Capitol representation. *Prerequisite:* 10.604 or permission of instructor.

10.705 SEMINAR IN CURRENT BUSINESS-GOVERNMENT RELATIONS PROBLEMS (s 03.00) In-depth study of current problems involving business and government. Topics to be determined. Individual study, research. Emphasis on impact of current problems on corporate-government relations. *Prerequisite:* 10.604 or permission of instructor.

10.706 SEMINAR IN CORPORATE-GOVERNMENT POLICY (s 03.00) Philosophy and practice of Business Decisions influenced by public policy. Emphasis on case problems. Reading and individual research into in-depth analysis of the concepts and issues of private enterprise and public policy. *Prerequisite:* permission of instructor.

10.710 CONTEMPORARY ACCOUNTING PROBLEMS (s 03.00) Nature of accounting principles and postulates. Consideration of major problems of income measurement and related problems of assets and equity valuation. *Prerequisite:* permission of instructor.

10.711 SEMINAR IN ACCOUNTING THEORY (s 03.00) Development of accounting theory. Analysis of current accounting problems. Review of current literature. Required of M.B.A. and Ph.D. candidates taking Accounting Comprehensive Examination. *Prerequisite:* permission of instructor.

10.755 MANAGEMENT OF THE ENTERPRISE (s 03.00) Application of theory and practice to simulated problems in general management. Involvement in problem-solving environment intended to integrate knowledge in various functional areas of business, and provides direct management experience. Provides opportunities to study and experience process of introducing planned organizational change. Various methods employed to simulate management environment including case studies, computerized management games, and consultation experiences. *Prerequisite:* completion of graduate core requirements, or permission of instructor.

10.765 SEMINAR IN FINANCE (s 03.00) Rigorous examination of current issues and recent developments in corporate financial management, investments, and commercial banking. Review of literature to cover total area of business finance. *Prerequisite:* permission of instructor.

10.791 SEMINAR IN PERSONNEL AND MANPOWER MANAGEMENT (s 03.00) Individual, group research in current problems, developments in personnel and manpower management. Required of all master's and doctoral candidates choosing industrial relations and/or personnel management as comprehensive examination field. *Prerequisite:* permission of instructor.

10.792 SEMINAR IN INDUSTRIAL RELATIONS (s 03.00) Individual, group research in current prob-

* See description under "General Curriculum Information" in this publication.

lems, developments in collective bargaining. Required of all master's and doctoral candidates choosing industrial relations and/or personnel management as comprehensive examination field. *Prerequisite:* permission of instructor.

10.795 SEMINAR IN MANPOWER MANAGEMENT (s 03.00) Use of selected case problems to develop integrated conceptual philosophy of manpower management role and function of manpower administrator in its application. Required of all master's and doctoral students selecting personnel management and/or industrial relations as comprehensive examination field. *Prerequisite:* permission of instructor.

11.601 MARKETING MANAGEMENT (s 03.00) Introduction to advanced theory and systems-oriented analytical methodology required for effective marketing management decision-making. Viewpoint is that of marketing executive whose responsibility is coordination of objectives and resources of firm with opportunities existing in market, whose strategies and tactics relate to the basic administrative processes of analysis, organization, planning and control. Approach is analytical rather than descriptive, drawing heavily upon disciplines of economics, behavioral science, and mathematics.

11.602 CONSUMER BEHAVIOR (s 03.00) Examines various processes and factors which influence consumer motivation and behavior. Explores consumer decision-making processes and their marketing implications. *Prerequisite:* 11.601 or permission of instructor.

11.603 INDUSTRIAL AND CONSUMER MARKETS (s 03.00) Covers nature and extent of markets for industrial and consumer goods and services; methods of anticipating and meeting industrial, governmental, institutional, and consumer needs; market targeting, development of marketing mixes. *Prerequisite:* 11.601 or permission of instructor.

11.604 RESEARCH FOR MARKETING MANAGEMENT (s 03.00) Emphasis placed on underlying scientific principles and processes that make marketing research an applied science. Information collection, interpretation, and presentation for shaping marketing objectives, policies, and planning. Emphasis placed on the application of concepts, methods, and knowledge of the quantitative and behavioral disciplines. These learning objectives facilitated through individual or group research projects. *Prerequisites:* 10.606, 11.602, and 11.603.

11.605 PROMOTION MANAGEMENT (s 03.00) Problems involved in management of promotional operations in the firm including advertising, sales promotion, merchandising, personal selling, public relations, and institutional promotion—individually, and as integrated into strategically coordinated promotional programs—are approached from managerial point of view. Course foundational for students seeking careers in sales, advertising or public relations. *Prerequisite:* 11.601 or permission of instructor.

11.606 DISTRIBUTION CHANNELS MANAGEMENT (s 03.00) Examination of marketing managerial issues and problems in distribution through use of an integrated channel of distribution approach. Investigation of problems involved in relation of trade channels for goods and services, and subsequent management of those channels for optimum efficiency. Viewpoints of manufacturer, wholesaler, and retailer presented. Emphasis placed on individual projects related to content of the course. *Prerequisite:* 11.603.

11.607 PROBLEMS IN PRICING (s 03.00) Product development and planning. Cost analysis. Pricing policies and practices in marketing of goods and services. New product introductions and life cycle planning. Product modification. Planning product line. *Prerequisite:* 11.603.

11.627 EXPORT/IMPORT MANAGEMENT (s 03.00) International trade organizations, marketing information, relations with governments (tariffs, permits, trade centers, etc.), getting the order, physical distribution, insurance, costing and pricing, collecting.

11.628 INTERNATIONAL MARKETING (s 03.00) Origins and development of marketing; modern advanced-country technology; international deployment of market research, physical distribution management, sales personnel selection, training and supervision methods; media selection; advertising themes and methods of presentation; planning and projective budgeting.

11.629 THE MULTINATIONAL FIRM (s 03.00) History, legal environment, organization and control, finance, marketing, production and procurement, research and development, personnel, business-government and business-public relations.

11.640 RESEARCH METHODS IN BUSINESS (s 03.00) Principles of acquiring and processing data and presenting information. Variety of research methods surveyed to analyze form of hypothesis development, methods of experimental design and approaches to data reduction and interpretation.

Applications to data analysis of business problems. Students design, process and evaluate research proposals. *Prerequisite:* satisfactory completion of all first year M.B.A. courses or equivalents.

11.683 REAL ESTATE MARKET ANALYSIS (s 03.00) Analysis of real estate demand, supply in local market. Sources of information. Analysis of population, changing city and housing markets. Forecasting.

11.684 MORTGAGE BANKING (s 03.00) Financing methods. Sources of funds, mortgage and capital markets, federal agencies. Direct lending. Required of students electing an M.B.A. field in real estate and urban development planning. *Prerequisite:* 10.605.

11.685 LAND PLANNING AND USE (s 03.00) Land values and utilization. Location problems of consumers, businesses, industries, households. Changes in land use patterns produced by market forces and public policies.

11.701 SEMINAR IN MARKETING THEORY (s 03.00) Capstone course for advanced degree in marketing and intended to ensure full understanding of concepts and theories of marketing and their interrelations in application; knowledge of current research and advances in the field; and to develop skill in critical evaluation of the concepts and theories and their application in solving business problems. *Prerequisite:* permission of area studies director.

11.726 SEMINAR IN INTERNATIONAL BUSINESS (s 03.00) Actual experiences of identified companies (to permit follow-up) and of public bodies (Port Authorities, planning commissions, tourist promotion associations). *Prerequisite:* 11.629.

11.776 SEMINAR IN REAL ESTATE ADMINISTRATION (s 03.00) Capstone seminar dealing with problems of managing real estate resources and related business enterprises. Management of urban development process and environment. Cases and/or computerized urban system model. Required of students electing an M.B.A. field in real estate and urban development planning.

11.778 SEMINAR IN LAND PLANNING AND USE (s 03.00) Land planning, use from interdisciplinary point of view. Roles of land economics, government planning, private sector. Urban renewal, new towns. Metropolitan problems. Required of students electing an M.B.A. field in real estate and urban development planning. *Prerequisite:* permission of area studies director.

11.779 SEMINAR IN HOUSING AND URBAN DEVELOPMENT (s 03.00) Housing goals, federal policy, local programs, role of private enterprise. Sources, uses of development capital, inter-regional flow of funds, mortgage market problems, technology; housing for low-income families; information, data systems; infrastructure. *Prerequisite:* permission of area studies director.

11.780 DOCTORAL SEMINAR IN LITERATURE OF REAL ESTATE AND LAND PLANNING (s 03.00) Reading, analysis of major contributions to philosophy, methodology, concepts. Group analysis, seminar discussion, individual research projects. Required of doctoral candidates; open to superior M.B.A. candidates on permission of instructor. See area studies director.

11.792 SEMINAR IN MANAGEMENT PLANNING AND CONTROL (s 03.00) Concepts and requirements of planning and control systems. Analytical tools required for output-oriented program structure. Application of measurements to management information systems with emphasis on interdependence between quantitative and behavioral fields. Comparison between profit and public oriented budgetary processes. *Prerequisite:* satisfactory completion of all M.B.A. first-year requirements or equivalents.

11.794 SIMULATION AND GAMING (s 03.00) Models and model building; simulations of continuous and discrete systems; business games. *Prerequisites:* satisfactory completion of all first-year M.B.A. courses or equivalents.

11.795 SEMINAR IN OPERATIONS ANALYSIS (s 03.00) Problems of practical application of management science techniques. Students will be expected to formulate research projects. Supervised research and discussion. *Prerequisite:* permission of area studies director.

11.796 DOCTORAL LITERATURE SEMINAR IN OPERATIONS ANALYSIS (s 03.00) Discussion of current literature in operations analysis field. Emphasis on quantitative techniques applicable to interdisciplinary studies and their application in fields of interest to management. Restricted to doctoral candidates. *Prerequisite:* permission of area studies director.

12.661 PRINCIPLES AND PROBLEMS OF TRANSPORTATION (s 03.00) Relation of transportation to economics, political and social organization and to national development. Economic theory as applied to transportation. Regulation and national transportation policy.

12.662 TRANSPORTATION POLICY ADMINISTRATION (s 03.00) Administration of public policies in transportation. Regulatory agencies—state and federal; problem of multi-functions. Public investment—analysis and administration; functional and mission approaches. Usefulness of transportation research in public sector.

12.663 INTERNATIONAL TRANSPORTATION PROBLEMS (s 03.00) Practices and problems of international transportation—air and maritime, Civil Aeronautics Board and Federal Maritime Commission authority and responsibilities; Federal Maritime Administration. International agreements; operating rights; five freedoms; freedom of the sea. Role of U.S. flag carriers.

12.665 PHYSICAL DISTRIBUTION MANAGEMENT (s 03.00) Management of product handling and distribution in industrial and merchandising firms. Theory and quantitative analysis of distribution. "Pipeline" costs; choice of carrier. Case studies of distribution management.

12.667 TRANSPORTATION ANALYSIS AND PLANNING (s 03.00) Procedures for analysis of public sector investment in transportation; transportation modeling techniques; benefit-cost analysis. Problems and case studies of transportation planning. Approaches to transportation investment evaluation.

12.672 URBAN TRANSPORTATION (s 03.00) Development and problems of land use; place in metropolitan planning; adjustment to changes in population, industry, social life; financing; local transit authorities; interstate and regional compacts; rates; service; traffic. *Prerequisite:* 12.661 or permission of instructor.

12.762 SEMINAR IN TRANSPORTATION (s 03.00) Analysis of transportation problems through supervised research projects. Both domestic and international transportation. Urban transportation. *Prerequisite:* at least six hours of graduate credits in transportation, and permission of instructor.

12.799 DOCTORAL DISSERTATION SEMINAR (s 01.00 through 12.00)

College of Continuing Education

DEAN Nathan Brodsky

Assistant Dean Rosemary Hurkamp

Assistant Dean, Off-Campus Programs and STRIDE Michael J. Orlando

Director, Academic Advisement Mary C. Bigley

Director, Off-Campus Programs Irving O. Barker

Director, English Language Institute Robert P. Fox

Director, Public Relations Programs Jack Seigle

Director, Pride/American University Institute Charlotte K. Brooks

Director, STRIDE Judy Newhouser

FULL-TIME FACULTY

Associate Professor R. P. Fox, M. A. Hood, G. R. Weaver, J. C. Seigle

Assistant Professor C. K. Brooks, D. E. Herold, K. H. Rabin

The mission of the COLLEGE OF CONTINUING EDUCATION is to serve the educational needs of adults who seek professional or personal advancement through full- or part-time study.

Some adults enroll in the College of Continuing Education to complete a degree. Many students take courses to meet professional requirements of their career field, while others take courses for personal enrichment.

The College of Continuing Education offers a wide range of academic programs geared to meet highly diversified student needs. These programs include degrees and certificates both on an undergraduate and graduate level, and non-credit programs. The certificate programs are offered for specialized preparation in a particular career field. Under certain conditions certificate work may be applied towards the awarding of a degree.

DEGREE PROGRAMS Associate in General Studies (with Mobility Clause), Bachelor of Science in General Studies (major in Social Science; with Mobility Clause), Master of Science in Public Relations.

MOBILITY CLAUSE The College of Continuing Education offers an opportunity for highly mobile students to take advantage of flexible residency requirements in order to complete undergraduate degrees at locations distant from The American University campus. See details in the college's "General Studies Degree Programs" section in this publication.

UNDERGRADUATE CERTIFICATE PROGRAMS Technology of Management, Community Development, Real Estate, English as a Second Language, Upward Mobility.

GRADUATE CERTIFICATE PROGRAMS Applied Economics, Public Relations, Government Public Information, Urban Affairs, Science and Technology: Policy and Administration, Computer Systems Applications, Management Information Systems, Operations Research Management, Scientific and Technical Information Systems, Research and Development Management, Environmental Resource Management (with further specialization in either Ocean Affairs or Toxic and Hazardous Materials).

CERTIFICATES OF ADVANCED GRADUATE STUDY Available in various fields and as individually designed.

COURSES BY NEWSPAPER, RADIO, AND TELEVISION Credit courses which can be pursued on an individual basis.

CEU NON-CREDIT PROGRAMS Various learning experiences offered throughout the year to meet the changing needs of the community. Continuing Education Units (CEU) awarded.

OFF-CAMPUS PROGRAMS The College of Continuing Education administers the offering of credit and non-credit courses at various locations throughout the Washington metropolitan area. The various programs are designed to meet the educational needs of students who wish to attend the University on a part-time basis at a center near their home or place of work.

DEAN'S HONORS LIST College of Continuing Education undergraduate students currently enrolled with at least two full courses and having had at least four courses at The American University prior to the current semester, and with no incomplete grades outstanding, who earned an average of 3.50 (grade point average) or higher in the immediately preceding session will be qualified for the Dean's List.

GRADUATION HONORS Undergraduate students are eligible to graduate with honors provided they have completed at least one-half of all course work required for their degree at The American University and have achieved the requisite grade point average. The average is based on courses taken at the University only. Pass-Fail courses will not be computed in the average. Undergraduate honors and the average required are as follows: *Summa Cum Laude*, 3.90 or higher; *Magna Cum Laude*, 3.75 to 3.89; *Cum Laude*, 3.50 to 3.749.

English Language Institute

The English Language Institute offers intensive and semi-intensive courses in English as a foreign language, and review and advanced level courses in English language topics for native speakers of English. For details concerning fees, course dates, and application, contact: English Language Institute, The American University, Washington, D.C., 20016; telephone (202) 686-2197.

Note: Admission for international students to all English workshops requires application through the English Language Institute. Application and testing fee is \$15.

FALL AND SPRING SEMESTERS (1) Intensive Courses (twenty to twenty-five hours per week): 74.110 English Workshop I: Intensive Basic English; 74.120 English Workshop II: Intensive Intermediate English; 74.130 English Workshop III: Intensive High-Intermediate English. (2) Semi-Intensive Courses (fifteen hours per week): 74.140 English Workshop IV: Semi-Intensive Advanced English; 74.160 Evening English Workshop; 74.170 Saturday English Workshop.

SUMMER SESSIONS (1) Intensive Courses (twenty-five to thirty hours per week): 74.111 Summer English Workshop I: Intensive Basic English; 74.121 Summer English Workshop II: Intensive Intermediate English; 74.131 Summer English Workshop III: Intensive High-Intermediate English; 74.141 Summer English Workshop IV: Intensive Advanced English. (2) Semi-Intensive Courses (fifteen to seventeen hours per week): 74.151 Summer English Workshop V: Semi-Intensive Advanced English; 74.161 Summer Evening English Workshop.

Courses of Instruction

Undergraduate Courses

74.110 ENGLISH WORKSHOP I: INTENSIVE BASIC ENGLISH (For International Students) (c 02.00) Course in basic English for students with little or no knowledge of English. Main emphasis of course is on oral English, and includes intensive practice of English grammar and pronunciation.

74.111 SUMMER ENGLISH WORKSHOP I: INTENSIVE BASIC ENGLISH (For International Students) (c 01.25) See description for 74.110.

74.120 ENGLISH WORKSHOP II: INTENSIVE INTERMEDIATE ENGLISH (For International Students) (c 02.00) Designed for intermediate students of English. Emphasizes pronunciation and the more complex structures of English, as well as the development of basic reading and writing skills.

74.121 SUMMER ENGLISH WORKSHOP II: INTENSIVE ENGLISH (For International Students) (c 01.25) See description for 74.120.

74.130 ENGLISH WORKSHOP III: INTENSIVE HIGH-INTERMEDIATE ENGLISH (For International Students) (c 02.00) Intensive course in English for more advanced students; equal emphasis on reading, writing, speaking, and listening.

74.131 SUMMER ENGLISH WORKSHOP III: INTENSIVE HIGH-INTERMEDIATE ENGLISH (For International Students) (c 01.25) See description for 74.130.

74.140 ENGLISH WORKSHOP IV: SEMI-INTENSIVE ADVANCED ENGLISH (For International Students) (c 01.25) Semi-intensive course in English for advanced students: emphasis on mastery of the pronunciation, grammatical structures, and writing features of English; advanced reading selections for increased comprehension and speed.

74.141 SUMMER ENGLISH WORKSHOP IV: INTENSIVE ADVANCED ENGLISH (For International Students) (c 01.25) Intensive course in English for advanced students: emphasis on mastery of pronunciation, grammatical structures, and writing features of English; advanced reading selections for increased comprehension and speed.

74.151 SUMMER ENGLISH WORKSHOP V: SEMI-INTENSIVE ADVANCED ENGLISH (For International Students) (c 01.00) See description for 74.140.

74.160 EVENING ENGLISH WORKSHOP (For International Students) (c 01.00) Semi-intensive, intermediate and advanced level courses with equal emphasis on speaking, listening, and reading skills; some attention to development of writing skills.

74.161 SUMMER EVENING ENGLISH WORKSHOP (For International Students) (c 00.75) Semi-intensive, beginning, intermediate, and advanced level courses with equal emphasis on speaking, listening, and reading skills; some attention to development of writing skills.

74.170 SATURDAY ENGLISH WORKSHOP (For International Students) (c 00.25) Intermediate level course in English. Equal emphasis on speaking, listening, and reading skills; some attention to development of writing skills. Language laboratory practice included.

74.190 ENGLISH WORKSHOP (c 01.00) Review course emphasizing fundamentals of grammar and improvement of reading and writing skills. Successful completion of this course does not fulfill the University requirement in English. Admission by placement test only.

74.200 COMPOSITION AND READING I (For International Students) (c 01.00) Foreign students whose competence in English makes them eligible for college level work are assigned to this section so that attention can be given to their special language problems. The emphasis in this course is on reading and writing.

74.201 COMPOSITION AND READING II (For International Students) (c 01.00) A continuation of 74.200; emphasis on literary and research techniques.

74.390 INDEPENDENT READING COURSE IN ENGLISH (c 00.25 through 02.00)*

74.396 SELECTED TOPICS (Non-Recurring) (c 01.00)*

74.490 INDEPENDENT STUDY PROJECT IN ENGLISH (c 00.25 through 02.00)*

Graduate and Advanced Undergraduate Courses

74.500 READING AND COMPOSITION FOR GRADUATE STUDENTS I (s 03.00) Restricted to graduate foreign students. Emphasis on library and research techniques and methods of technical writing.

74.501 READING AND COMPOSITION FOR GRADUATE STUDENTS II (s 03.00) Continuation of 74.500 with emphasis on writing a research paper.

74.590 INDEPENDENT READING COURSE IN ENGLISH (s 01.00 through 06.00)*

74.596 SELECTED TOPICS (Non-Recurring) (s 03.00)*

Graduate Courses

74.690 INDEPENDENT STUDY PROJECT IN ENGLISH (s 01.00 through 06.00)*

74.696 SELECTED TOPICS (Non-Recurring) (s 03.00)*

* See description under "General Curriculum Information" in this publication.

General Studies Degree Programs

MOBILITY CLAUSE After acceptance in either of the general studies degree programs, if the student moves to a location in excess of a seventy-five mile radius of the University's campus, the student may complete the degree program at an American University approved institution and still receive an American University degree. The only restriction is that eight courses must be completed at The American University, four of which must be courses at the xx.300 level in the primary area, at some time during the program. A \$55 retention fee must be paid to The American University for each semester during which the student pursues the program at another institution or is inactive.

The American Association of State Colleges and Universities, acting in behalf of the American Council on Education and the Department of Defense, has designated this program as a Serviceman's Opportunity College.

Associate in General Studies (with Mobility Clause)

MAJOR IN GENERAL STUDIES

REQUIRED COURSES Two course units in English: 23.100 Composition and Reading I; 23.101 Composition and Reading II, or approved alternative.

ELECTIVES Fourteen course units to bring to a total of sixteen course units for the degree. The student pursuing the Associate in General Studies is free to select any fourteen courses offered by the University for which he or she is qualified. To gain approval for these courses, the student must first consult with an academic advisor in the College of Continuing Education.

Bachelor of Science in General Studies (with Mobility Clause)

MAJOR IN SOCIAL SCIENCE

REQUIRED COURSES (1) 23.100 Composition and Reading I and 23.101 Composition and Reading II, or approved alternative. (2) Six course units in the major area (Social Science). Four of the six must be taken at the upper level at The American University.

ELECTIVES Twenty-four to complete a minimum of thirty-two course units. Ten of these must be in the social sciences.

Upward Mobility Certificate Program

This certificate program is for adults who realize that improving their educational qualification is the key to job promotion. It is for men and women who left high school thinking they could not get to college, and now find that it is *not* too late to start. Under certain conditions, certificate courses may apply to the Associate Degree Program.

The Upward Mobility Certificate Program consists of a group of courses mutually agreed upon between The American University and the student's employer. The courses are distinctly job related and are designed to improve all-around qualifications.

Admission to the program is limited to those holding at least a high school diploma or GED high school qualification. An admission interview with an academic advisor of the College of Continuing Education is required. For students who are non-United States citizens, an admission interview is required with the Office of International Student Admissions.

The certificate is awarded upon completion of eight of the twelve courses. Two of the eight courses are required; the balance may be selected from the courses offered. A maximum of three comparable courses, in which a grade of C or higher was received, may be applied by transfer from accredited institutions. If a student is later accepted for bachelor undergraduate degree admission, certificate courses completed with a grade of C or higher may be applied to the bachelor degree program, if accepted as such by the University at the time of admission.

The certificate program consists of: (1) University Required Courses: 23.100 Composition and Reading I; 23.101 Composition and Reading II; or equivalents. (2) Six other courses as agreed upon by the student, and employer and The American University. For example, a student aspiring to upward mobility in the occupational area of finance may take any six of the following ten courses provided proper prerequisites have been met (this selection may vary according to job related

requirements): 71.105 Mathematical Skills; 69.202 Basic Statistics; 69.300 Business Statistics; 71.210 Accounting Principles I; 71.212 Accounting Principles II; 71.213 Accounting Principles III; 19.100 Introduction to Economics; 19.300 Price Theory and Its History; 19.306 Money and Banking; 10.256 Management of Organizations.

Pride/American University Institute

The Pride/American University Institute offers a ten course unit Undergraduate Certificate and a sixteen course unit Associate Degree in General Studies through the College of Continuing Education. The institute brings together the resources of an urban university and the community to provide both developmental courses in the basic skills and an academic/scholarship program. The developmental courses are available to the university at large, and provide diagnostic, remedial and developmental services and course sequences.

The scholarship program, for qualifying residents of the metropolitan Washington area, admits students on the basis of financial need and a series of basic academic skills tests. Required developmental courses are designed to meet the needs of the non-traditional student who may have been out of school for a number of years. Advanced courses focus on various academic areas as they relate to the needs of these students. Courses are fully accredited and are open to all University students.

Students taking developmental courses and scholarship students in the Pride/American University Institute are subject to the same academic standards to which all American University students are held. They are encouraged to take courses in other departments, schools and colleges when they have completed the developmental sequences and have selected their career and personal goals.

REQUIRED COURSES *71.100 Language Skills; 71.101 Communications I; 71.102 Communications II; *71.105 Mathematical Skills; *71.106 Introduction to Academic Discipline; *71.108 Introduction to the Social Sciences; 71.109 Study Skills/Orientation.

ADVANCED COURSES 71.103 Philosophy of Communication: The Essay; 71.104 Philosophy of Communication: Critical Reading and Training; 71.110 Fabric of Social Structure: Psychology I; 71.111 Fabric of Social Structure: Psychology II; 71.112 Fabric of Social Structure: Economics I; 71.113 Fabric of Social Structure: Economics II; 71.114 Fabric of Social Structure: Sociology I; 71.115 Fabric of Social Structure: Sociology II; 71.201 Black Cultural Heritage; 71.202 Social Dynamics; 71.210 Accounting Principles I; 71.211 Salesmanship; 71.212 Accounting Principles II; 71.213 Accounting Principles III; 71.220 The Educational Institution; 71.221 Law, Repression, and the Community; 71.222 Community Organization; 71.223 Political Man and Society; 71.224 Development of Effective Oral Communication I; 71.225 Development of Effective Oral Communication II; 71.230 Consumer Education; 71.231 Lay Advocacy; 71.232 Principles of Counseling; 71.233 Techniques of Management; 71.440 Day Care Administration; 71.441 Child Psychology: Day Care Application; 71.442 Education in Day Care Schools; 71.443 Day Care Health Programs; 71.390 Independent Reading Course; 71.396 Selected Topics (Non-Recurring); 71.490 Independent Study Project; 71.491 Internship.

Courses of Instruction

Undergraduate Courses

71.100 LANGUAGE SKILLS (c 01.00) Provides students with basic language arts skills such as reading, sentence structure, vocabulary building, spelling and usage. Instruction individual and intensive. Recommended that students register for the course on a pass/fail basis.

71.101 COMMUNICATIONS I (c 01.00) Provides intensive teaching of writing skills, particularly expository prose, and the analysis and criticism of fiction. Attempts to make student conscious of own prose style, its diction, sentence structure, organization and tone. Fulfills University English requirement 23.100.

71.102 COMMUNICATIONS II (c 01.00) Concentrates upon process of preparing research paper giving students practice in selecting and limiting a subject, preparing outlines, using note cards,

* May be waived for Pride students at the discretion of the academic counselor upon analysis of test results.

differentiating between footnote and bibliography entries and writing the paper. Fulfills University English requirement 23.101.

71.103 PHILOSOPHY OF COMMUNICATION: THE ESSAY (c 01.00) Introduces students to rudiments of effective essay writing. Assignments range from expository to argumentative; from rhetorical to poetic.

71.104 PHILOSOPHY OF COMMUNICATION: CRITICAL READING AND THINKING (c 01.00) Involves awareness of what really happens between an author and his reader in the highly complex process of reading. Students do close analysis of a number of essays and several books.

71.105 MATHEMATICAL SKILLS (c 01.00) Provides fundamentals of mathematics necessary to allow students to deal with simple mathematics functions. Pays particular attention to skills needed for success in other classes.

71.106 INTRODUCTION TO ACADEMIC DISCIPLINE (c 01.00) Introduces students to tools they need to master in order that they may "learn how to learn." These tools will include the dictionary, thesaurus and reference books; library and other sources of information.

71.108 INTRODUCTION TO THE SOCIAL SCIENCES (c 01.00) Introduces students to social sciences and their application and approach to specific problems. Issue oriented, interdisciplinary course involving psychology, economics and sociology.

71.109 STUDY SKILLS/ORIENTATION (c 01.00) Provides strengthening for study skills of students entering the University, especially in areas important to their success at this level. Introduces them to people, places and events on campus, and helps them to see University as a resource for intellectual and personal growth.

71.110 FABRIC OF SOCIAL STRUCTURE: PSYCHOLOGY I (c 01.00) Introductory psychology, with cross-cultural emphasis utilizing commonplace experience of the students. Social and abnormal psychology, development theory, and psychology of the Black experience.

71.111 FABRIC OF SOCIAL STRUCTURE: PSYCHOLOGY II (c 01.00) Familiarizes students with basic concepts of abnormal and social psychology. Relates psychology to the inner city experience. *Prerequisite:* 71.110.

71.112 FABRIC OF SOCIAL STRUCTURE: ECONOMICS I (c 01.00) Stresses basic economic theory including supply and demand, scarcity, elasticity and monetary, fiscal and incomes policies.

71.113 FABRIC OF SOCIAL STRUCTURE: ECONOMICS II Reviews basic economic theory, marginal analysis (theory of the firm), and concentration upon several current economic problem areas with theoretical implications and applications. *Prerequisite:* 71.112.

71.114 FABRIC OF SOCIAL STRUCTURE: SOCIOLOGY I (c 01.00) Concentrates upon introductory survey of sociology focusing on societal institutions that serve or fail to serve the central city.

71.115 FABRIC OF SOCIAL STRUCTURE: SOCIOLOGY II (c 01.00) Examines specific social issues of importance in inner city experience. *Prerequisite:* 71.114.

71.201 BLACK CULTURAL HERITAGE (c 01.00) Emphasizes historical, literary, music, artistic, and scientific contributions of Black Americans.

71.202 SOCIAL DYNAMICS (c 01.00) Stresses sociology of inner-city communities with reference to social movements and institutions, urban problems, law enforcement and community development.

71.210 ACCOUNTING PRINCIPLES I (c 01.00) Introduces basic techniques of recordkeeping and accounting.

71.211 SALESMANSHIP (c 01.00) Examines techniques of salesmanship; marketing as they relate to inner-city economic development and creation of a relevant and effective sales force.

71.212 ACCOUNTING PRINCIPLES II (c 01.00) Stresses those aspects of accounting that should be especially useful in the central city. *Prerequisite:* 71.210.

71.220 THE EDUCATIONAL INSTITUTION (c 01.00) Makes students aware of existing structures of education in public and private elementary, secondary and university institutions in urban areas. Emphasis is on minority education.

71.221 LAW, REPRESSION AND THE COMMUNITY (c 01.00) Emphasizes law as it relates to inner-city resident and introduces students to police department as an institution.

71.222 COMMUNITY ORGANIZATION (c 01.00) Acquaints students with the principles and techniques of community organization. Stresses practical applications as they relate to minority communities.

71.223 POLITICAL MAN AND SOCIETY Introduces students to political processes and to their relationship to conflict and cross-cultural interaction.

71.224 DEVELOPMENT OF EFFECTIVE ORAL COMMUNICATION (c 01.00) Gives students intensive skill development in oral communication in order to improve both quality and effectiveness of the spoken language. Includes study of selected topics of contemporary interest.

71.225 DEVELOPMENT OF EFFECTIVE ORAL COMMUNICATION II (c 01.00) Provides opportunities for students to focus upon issues of contemporary interest. Emphasis is placed upon the use of appropriate levels of language, upon logical organization of ideas and upon the competent use of oral language. An area of concern is oral language problems of minorities.

71.230 CONSUMER EDUCATION (c 01.00) Provides basic knowledge of buying, selling and consumer principles. Stresses practical application.

71.231 LAY ADVOCACY (c 01.00) Makes students aware of their rights under the Constitution and enables them to use law as tool and as weapon. Designed to meet general legal needs of inner-city residents.

71.232 PRINCIPLES OF COUNSELING (c 01.00) Considers basic theories of counseling and development of basic counseling skills for both laymen and professionals. Geared toward methods of counseling inner-city residents.

71.233 TECHNIQUES OF MANAGEMENT (c 01.00) Examines strategies of management in relation to community organizations.

71.440 DAY CARE ADMINISTRATION (c 01.00) Introduces students to establishment and implementation of successful day care center.

71.441 CHILD PSYCHOLOGY: DAY CARE APPLICATION (c 01.00) Introduces students to child development with emphasis on cognitive and social learning. Designed for child care workers.

71.442 EDUCATION IN DAY CARE SCHOOLS (c 01.00) Introduces students to early childhood education at successful day care center.

71.443 DAY CARE HEALTH PROGRAM (c 01.00) Introduces students to those aspects of health necessary for successful administration of day care program. Stresses performance of personnel in terms of health.

Public Relations and Public Information

The certificate programs can be completed through fifteen hours of graduate course work as described below and are open to qualified students who already hold a Bachelor's degree. Those who have had no previous experience or course work in the field of communications may be required to take some additional undergraduate prerequisites. No comprehensive examination, research seminar, or thesis is required for these certificates.

A student in a graduate certificate program must maintain at least a C average in all courses taken. If a D grade is received in any course, the student must repeat that course or take an additional approved substitute. Waiver of foundation courses may be granted for exceptionally well qualified persons with comparable prior training or experience. Only three hours of acceptable and approved credit at the graduate level may be transferred from other accredited institutions into the certificate program.

The College of Continuing Education may offer admission to a graduate certificate program as an alternative for the applicant who applies for, and is not accepted for, admission to a graduate degree program. If a student who does not meet The American University's requirements for graduate admission completes a graduate certificate with at least a 3.50 grade point average, he will be considered for admission to a College of Continuing Education degree program.

Graduate Certificate Program in Public Relations

PREREQUISITES 72.001 Basic Writing Skills (an accelerated non-credit program for students who do not possess these skills); ability to type.

GENERAL REQUIREMENTS To total nine hours: 72.540 Principles of Public Relations; 72.542 Promotional Campaigns; 72.557 Publicity and Print Media or 72.558 Publicity and Audio-Visual Media.

FIELD REQUIREMENTS To total six hours from the following: 72.541 History of Public Relations; 72.543 Public Relations Abroad; 72.544 Public Relations and Government; 72.545 Public Relations in Business; 72.525 Analysis of Propaganda; 72.555 Public Relations Law; 72.556 Public Relations for Non-Profit Organizations; 72.596 Selected Topics (Non-Recurring).

Graduate Certificate Program in Government Public Information

PREREQUISITES 72.001 Basic Writing Skills (an accelerated non-credit program for students who do not possess these skills); ability to type.

GENERAL REQUIREMENTS To total nine hours: 72.540 Principles of Public Relations; 72.544 Public Relations and Government; 72.555 Public Relations Law.

FIELD REQUIREMENTS To total six hours from the following: 72.541 History of Public Relations; 72.542 Promotional Campaigns; 72.543 Public Relations Abroad; 72.545 Public Relations in Business; 72.525 Analysis of Propaganda; 72.556 Public Relations for Non-Profit Organizations; 72.557 Publicity and Print Media; 72.558 Publicity and Audio-Visual Media; 72.596 Selected Topics (Non-Recurring).

Master of Science in Public Relations

MAJOR IN PUBLIC RELATIONS

This is a professional degree designed to meet the needs of the adult community employed in the many and varied areas of public relations.

ADMISSION A candidate applying for admission to the Master of Science in Public Relations program must have a Bachelor's degree from an accredited college or university. He must satisfy certain grade point averages as outlined in this publication. Forms for application to the graduate program and the required letters of recommendation may be obtained from the Office of Admissions, Financial Aid and Veterans Affairs, Programs and Services.

Provisional admission may be granted to those students who do not meet the minimum standards for admission. This may be accomplished by maintaining a 3.50 grade point in the Graduate Certificate Program in Public Relations or Government Public Information offered by the College of Continuing Education.

PROGRAM In addition to the prerequisites, the program consists of at least thirty-three graduate hours of course work. Twelve hours of "core" courses must be completed together with fifteen hours in electives and six hours in Public Relations Research Methods and Directed Research in Public Relations.

Each student will be assigned a faculty advisor who will outline and approve the student's program. Courses and their sequence will be planned. The program must be completed with at least a B average for all graduate courses taken.

The student may complete all of his course work for this program at off campus education centers in the evening. In some instances, he may take courses in the day or evening on campus.

COMPREHENSIVE EXAMINATION Satisfactory completion of *one* written comprehensive examination is required. This examination will be offered each semester as announced in the academic calendar in the *Schedule of Classes*.

RESEARCH PROJECT In addition to satisfactory completion of the prescribed number of classroom courses, the Master of Science candidate in Public Relations will be required to complete Public Relations Research Methods and Directed Research in Public Relations. Originality, pertinence to current issues or programs, attention to details, quality of copy, and overall quality of the presentation will be governing factors as to the acceptability of the project as partial fulfillment of degree requirements. The project will be undertaken only with the approval of the faculty advisor, and

the student must complete both Public Relations Research Methods and Directed Research in Public Relations with a grade of B or better.

PREREQUISITES 72.001 Basic Writing Skills (an accelerated non-credit course for students who do not possess these skills); ability to type.

CORE REQUIREMENTS To total twelve hours: 72.540 Principles of Public Relations; 72.555 Public Relations Law; and one course from 72.544 Public Relations and Government or 72.545 Public Relations in Business or 72.556 Public Relations for Non-Profit Organizations; and one of the following two courses (the other may be used as an elective): 72.557 Publicity and Print Media or 72.558 Publicity and Audio-Visual Media.

ELECTIVES To total fifteen hours from the following: 72.525 Analysis of Propaganda; 72.541 History of Public Relations; 72.542 Promotional Campaigns; 72.543 Public Relations Abroad; 72.544 Public Relations and Government; 72.545 Public Relations in Business; 72.556 Public Relations for Non-Profit Organizations; 72.557 Publicity and Print Media; 72.558 Publicity and Audio-Visual Media; 72.740 Seminar in Public Relations; 10.604 Business in Its Social Environment; 10.680 Regulation and Control of Business; 10.701 Seminar in Corporate Public Affairs; 11.605 Promotional Management; 54.600 The Administrative State. Additional electives may be substituted as determined by the faculty advisor with the approval of the Dean of the College of Continuing Education.

Note: Students interested in graduate work in business-government relations in the School of Business Administration may use up to fifteen hours in public relations courses toward the Master of Science degree in Business-Government Relations.

RESEARCH PROJECTS To total six hours: 72.790 Public Relations Research Methods; 72.791 Directed Research in Public Relations.

Courses of Instruction

Graduate and Advanced Undergraduate Courses

72.525 PROPAGANDA ANALYSIS (s 03.00) Attitudes and public opinion; how they have been influenced in past and present through propaganda techniques. Specific topics include formation of attitudes, attitude change, nature of public opinion, public opinion measurement, how PR practitioner attempts to persuade. Historical uses of propaganda, and propaganda—good, bad or neither? *Prerequisite:* 72.540.

72.540 PRINCIPLES OF PUBLIC RELATIONS (s 03.00) Historical development of public relations; economic and social factors in relations between publics and media in formation of public opinion. Case studies of current practices.

72.541 HISTORY OF PUBLIC RELATIONS (s 03.00) Development of public relations in U.S. During twentieth century; pioneer PR practitioners and their philosophies; study of different approaches to the practice.

72.542 PROMOTIONAL CAMPAIGNS (s 03.00) Case studies of promotional methods of business, government and social organizations; development of promotional campaigns by each student for an institution in Washington, D.C. *Prerequisite:* 72.540.

72.543 PUBLIC RELATIONS ABROAD (s 03.00) Problems of public relations in international affairs; case studies of American business public relations practices in other countries. *Prerequisite:* 72.540.

72.544 PUBLIC RELATIONS AND GOVERNMENT (s 03.00) Analysis of public information programs conducted by governmental agencies to influence various publics and institutions on key government issues. Intensive research and journalistic reporting of actual information programs in Washington, D.C. during the semester. *Prerequisite:* 72.540.

72.545 PUBLIC RELATIONS IN BUSINESS (s 03.00) Case studies in business and industrial relationships with various publics, e.g., labor, trade, dealer, customer, stockholder and community. *Prerequisite:* 72.540.

72.555 PUBLIC RELATIONS LAW (s 03.00) Legal implications and consequences of work of the public relations practitioner. Laws that practitioner must be aware of to do his work intelligently.

72.556 PUBLIC RELATIONS FOR NON-PROFIT ORGANIZATIONS (s 03.00) Public relations practice

of labor, farm, welfare, hospital and educational institutions. How the non-profit sector interacts with business, government and the media.

72.557 PUBLICITY AND PRINT MEDIA (s 03.00) Designed to teach basics of publicity writing, including the preparation of press releases, magazine query letters, article outlines, and articles and speech research and writing.

72.558 PUBLICITY AND AUDIO-VISUAL MEDIA (s 03.00) Designed to teach basics of publicity writing, including preparation of press releases, spot announcements for radio and television, and techniques in preparing audio and visual material for radio and television use.

72.596 SELECTED TOPICS (Non-Recurring) (s 01.00)*

Graduate Courses

72.740 SEMINAR IN PUBLIC RELATIONS (s 03.00) Formulation of policies for long-range public relations programs. *Prerequisite:* permission of director of Public Relations Program.

72.790 PUBLIC RELATIONS RESEARCH METHODS (s 03.00) Fundamentals of research in public relations. Required of all master's degree candidates. *Prerequisite:* permission of instructor.

72.791 DIRECTED RESEARCH IN PUBLIC RELATIONS (s 03.00) Application of research methods to study of a specific problem in public relations. Required of all master's degree candidates. *Prerequisite:* grade of B or better in 72.790.

Courses by Radio, Newspaper, Television

Courses by Radio

The College of Continuing Education offers two fully accredited courses via The American University radio station WAMU-FM, 88.5 on the dial.

ECOLOGY AND THE HUMAN ENVIRONMENT A graduate or advanced senior level course broadcast twice weekly with a replay on Sundays. Twenty-eight lectures by Dr. Martha Sager, Professor of Environmental Systems Management, offer fundamental information on ecology and explore many related topics, *i.e.*, health and drugs, food additives, nuclear and fossil energy, pesticides and food, the politics of pollution. The course number is 31.571.

WOMEN DARE DAILY Women Dare Daily is an undergraduate level course broadcast once weekly with a replay on Saturday. The course covers women in vocations, the home, consumerism, law, and politics. In addition to the radio lectures, there is a term project and two on campus discussion sessions. The course number is 31.561.

Newspaper Course

Under a grant by the National Endowment for the Humanities, and in coordination with the University of California, San Diego, the College of Continuing Education presents a series of eighteen lectures, one each Sunday in the Washington *Star News*. The course lectures are prepared by distinguished educators and scholars throughout the United States and the course is associated with the American Studies Program in the College of Arts and Sciences at The American University. In addition to the weekly newspaper lecture, students taking the course for undergraduate credit are requested to attend two on-campus conferences.

Courses by Television

Television courses for credit will periodically be offered by The American University in cooperation with The University of California at San Diego and other institutions. One such course, "The Ascent of Man," was offered in the Spring 1975 semester and will be offered again. This course is based on an outstanding award-winning television series produced by BBC and Time-Life and presented nationally on the Public Broadcasting Service. The course features the late scientist, Dr. Jacob Bronowski, whose twenty-five year effort to bridge the sciences and humanities are culminated in the thirteen one-hour programs. Class sessions on campus augment the television programs.

* See description under "General Curriculum Information" in this publication.

A text by Bronowski, an anthology of readings, and a study guide are used. The course is offered jointly by the College of Continuing Education and the College of Arts and Sciences.

Applied Economics Program

Graduate Certificate in Applied Economics

The College of Continuing Education in cooperation with the Department of Economics offers qualified adults the opportunity to pursue advanced study in the field of applied economics. A student will earn a Graduate Certificate in Applied Economics by completing the prescribed fifteen graduate hours.

The certificate is offered to students who are seeking a more thorough background in economics, yet are uncertain at the present time whether they wish to pursue a master's program. Under certain conditions, certificate work may apply toward a graduate degree objective.

A student in a graduate certificate program must maintain at least a C average in all courses taken. If a D grade is received in any course, the student must repeat that course or take an additional approved substitute. Waiver of foundation courses may be granted to exceptionally well-qualified persons with comparable prior education or experience. Only three hours of acceptable and approved credit at the graduate level may be transferred from other accredited institutions into the certificate program.

FOUNDATION COURSES No graduate credit. 19.100 Introduction to Economics; 19.300 Price Theory and Its History; 19.301 Income Theory and Its History; 19.310 Introduction to Econometrics or 69.202 Basic Statistics.

GENERAL REQUIREMENTS To total nine hours: 19.500 Price Theory; 19.501 Income Theory I; 19.522 Econometrics I.

FIELD COURSES To total three hours from the following: 19.523 Econometrics II; 19.532 Monetary Theory and Policy; 19.541 Public Economics I; 19.544 Survey of Urban Political Economy; 19.551 International Economic Theory; 19.560 Economic Development; 19.571 Labor Economics: Theory.

ELECTIVES To total three hours from the following: 19.510 Cost-Benefit Analysis; 19.521 Mathematical Economic Analysis; 19.596 Selected Topics (Non-Recurring), including such subjects as agricultural economics, manpower development and utilization, economics and education, economics and health care, costs and benefits of economic growth, environmental economics, workers' self-management, management-labor relations, government and the multi-national corporation; 10.642 Managerial Economics; 12.661 Principles and Problems of Transportation; 19.785 Seminar in Mathematical Economics.

MASTER OF ARTS IN APPLIED ECONOMICS The College of Continuing Education, in cooperation with the Department of Economics of the College of Arts and Sciences, offers qualified adults the opportunity to pursue this advanced study in the field of applied economics. Program description and course requirements are given under the Department of Economics in this publication.

Science and Technology: Policy and Administration

Graduate Certificate Program

The College of Continuing Education in cooperation with the School of Government and Public Administration, College of Public Affairs, offers a certificate program in Science and Technology: Policy and Administration for the student who wants a more intensive and shorter program than a graduate degree. In certain conditions certificate work may apply toward a graduate degree objective. However, only grades of B or better may be applied toward a graduate degree program in the School of Government and Public Administration.

The graduate certificate program is open to students who have a bachelor's degree from an accredited institution. For those students who are not United States' citizens, special approval for admission is required from the Office of International Admissions.

A student in a graduate certificate program must maintain at least a "B" average in all courses taken. Only three hours of acceptable and approved credit for the required graduate level courses may be transferred from other accredited institutions into the certificate program.

FOUNDATION COURSES Students should have a background in the American governmental system through either courses or experience.

GENERAL REQUIREMENTS To total nine hours: 54.673 Science, Technology, and Government: Interaction and Issues; 55.513 Change and the Managerial Process; 55.570 Management of Research and Engineering.

ELECTIVES To total nine hours from the following: 54.600 The Administrative State; 54.661 The Public Management of Science; 54.563 Science, Technology, and International Affairs; 54.670 American Public Policy; 55.673 Planning and Control of Research and Development Operations.

Technology and Administration

Undergraduate Certificate Program in Technology of Management

Students in the Technology of Management certificate program may apply such a program to careers in the field of business or technology of management. The certificate is awarded upon completion of eight courses distributed under the curriculum provided below. Up to an equivalent of three courses of comparable previous course work may be applied by transfer. A minimum of five courses of this program must be taken in residence. Students may transfer into the program grades of C or better from an accredited institution. The student must maintain a C average to be awarded the certificate.

CERTIFICATE REQUIREMENTS To total eight courses: (1) five required courses: 10.206 Introduction to Financial Accounting; 41.100 Finite Mathematics; 55.310 Introduction to Data Processing; 55.337 Problem Analysis; 69.202 Basic Statistics; (2) and one course from: 55.333 Computer Programming: FORTRAN; 55.334 Computer Programming: COBOL; 55.335 Computer Programming: PL/1; (3) and two courses from: 55.331 Introduction to Computer Design; 55.360 Management of the Computer; 55.380 Introduction to Environmental Management.

Graduate Certificate Programs in Technology of Management

The College of Continuing Education offers the following programs for certificates in technology of management: computer systems, applications, operations research, scientific and technical information systems, science/technology policy and administration, management information systems, and environmental systems management.

These certificate opportunities are offered as specialized preparation for careers in these fields for the students who do not want the broader and more demanding requirements of graduate study. Under certain conditions certificate work may be applied toward the award of a degree.

These certificate programs are open to any student who has a Bachelor's degree from an accredited undergraduate institution.

COMPUTER SYSTEMS APPLICATIONS

FOUNDATION COURSES No graduate credit. *55.310 Introduction to Data Processing; 55.333 Computer Programming: FORTRAN or 55.334 Computer Programming: COBOL or 55.335 Computer Programming: PL/1; 55.411 Introduction to Management Mathematics or 41.100 Finite Mathematics; 69.400 Managerial Statistics or 69.300 Business Statistics.

GENERAL REQUIREMENTS To total six hours: 55.511 The Systems Approach or 55.512 Introduction to Cybernetics; 55.530 Real-Time Systems.

FIELD COURSES To total nine hours from the following: 55.531 Computer Design; 55.632 Simulation and Modeling; 55.633 Programming Systems and Language; 55.635 Workshop in Computer Systems; 55.637 Workshop in Operating Systems.

* Waived by the program director for the student who has had two years of approved job-related computer experience or substantial experience in computer data-handling.

OPERATIONS RESEARCH

FOUNDATION COURSES No graduate credit. 41.222 Calculus II; 69.400 Managerial Statistics or 69.300 Business Statistics.

GENERAL REQUIREMENTS To total six hours: 55.514 Operations Research Management; 55.542 Probability and Statistics for Management Decisions.

FIELD COURSES Nine hours from the following: 55.641 Methods of Operations Research I; 55.642 Methods of Operations Research II; 55.645 Workshop in Operations Research; 55.646 Cost Benefit Analysis.

SCIENTIFIC AND TECHNICAL INFORMATION SYSTEMS

FOUNDATION COURSES No graduate credit. *55.310 Introduction to Data Processing; 55.333 Computer Programming: FORTRAN or 55.335 Computer Programming: PL/1; 55.411 Introduction to Management Mathematics or 41.100 Finite Mathematics; 69.400 Managerial Statistics or 69.300 Business Statistics.

GENERAL REQUIREMENTS To total six hours: 55.511 The Systems Approach or 55.512 Introduction to Cybernetics; 55.530 Real-Time Systems.

FIELD COURSES To total twelve hours from the following: 55.550 Survey of Information Science and Technology; 55.650 Natural Language Data Processing; 55.651 Technical Information Machine Systems; 55.653 Concepts of Indexing and Abstracting; 55.656 Publication Techniques.

MANAGEMENT INFORMATION SYSTEMS

FOUNDATION COURSES No graduate credit. *55.310 Introduction to Data Processing; 55.333 Computer Programming: FORTRAN or 55.334 Computer Programming: COBOL or 55.335 Computer Programming: PL/1; 55.411 Introduction to Management Mathematics or 41.100 Finite Mathematics; 69.400 Managerial Statistics or 69.300 Business Statistics.

GENERAL REQUIREMENTS To total six hours: 55.511 The Systems Approach; 55.530 Real-Time Systems.

FIELD COURSES To total nine hours from the following (one of which must be 55.660): 55.560 Systems Design for Business Operations; 55.561 Management of Automatic Data Processing Systems; 55.660 Management Information and Reporting Systems; 55.665 Workshop in Management Information Systems.

RESEARCH AND DEVELOPMENT MANAGEMENT

FOUNDATION COURSES No graduate credit. 55.411 Introduction to Management Mathematics or 41.100 Finite Mathematics; 69.400 Managerial Statistics or 69.300 Business Statistics.

GENERAL REQUIREMENTS To total six hours: 55.513 Change and the Managerial Process; 55.570 The Management of Research and Engineering Organizations.

FIELD COURSES Nine hours from: 54.673 Science, Technology, and Government; 55.571 Technological Forecasting; 55.671 Research and Development in the Total Organization; 55.672 Scientific and Engineering Manpower; 55.673 Planning and Control of Research and Development Operations.

ENVIRONMENTAL RESOURCE MANAGEMENT

FIELD COURSES To total fifteen hours from the following: 55.580 Environmental Systems Analysis—A Survey Course; 55.581 Technological Systems Management of the Environment; 55.582 Administrative Systems Management of the Environment; 55.683 Pollution Abatement Potentials; 55.684 Environmental Management in Relation to Conservation Practices; 55.685 Workshop in Environmental Systems Management; 55.780 Seminar in Environmental Systems Management.

OPTIONAL COURSES May be fitted into the field requirements as part of the required fifteen hours: 55.590 Independent Reading Course; 31.571 Ecology and the Human Environment (radio course), may be substituted for 55.580.

* Waived by the program director for the student who has had two years of approved job-related computer experience or substantial experience in computer data-handling

ENVIRONMENTAL RESOURCE MANAGEMENT: OCEAN AFFAIRS

FIELD COURSES To total fifteen hours from the following: 55.580 Coastal and Estuarine Environmental Survey; 55.581 Engineering Principles/Environmental Management; 55.582 Marine Law; 55.683 Marine Pollution; 55.684 Conservation Management and the Marine Environment; 55.685 Ocean Affairs; 55.780 Seminar in Marine and Coastal Zone Management.

OPTIONAL COURSES May be fitted into the field requirements as part of the required fifteen hours: 55.590 Independent Reading Course; 31.571 Ecology and the Human Environment (radio course), may be substituted for 55.580.

ENVIRONMENTAL RESOURCE MANAGEMENT: TOXIC SUBSTANCES AND HAZARDOUS MATERIALS

FIELD COURSES To total fifteen hours: 55.690 Environmental Systems Analysis of Toxic Substances and Hazardous Materials; 55.681 Survey of Toxic Substances and Hazardous Materials; 55.682 Technological Systems Management of Toxic Substances and Hazardous Materials; 55.683 Pollution Abatement Potentials of Toxic Substances and Hazardous Materials; 55.684 Environmental Management in Relation to Conservation Practices Dealing with Toxic Substances and Hazardous Materials Utilized in Outdoor Recreation Areas.

OPTIONAL COURSES May be fitted into the field requirements as part of the required fifteen hours: 55.590 Independent Reading Course; 31.571 Ecology and the Human Environment (radio course), may be substituted for 55.580.

Urban Affairs

The College of Continuing Education in cooperation with the School of Government and Public Administration, College of Public Affairs, offers a certificate program in Urban Affairs for the student who wants a more intensive and shorter program than a graduate degree. In certain conditions certificate work may apply toward a graduate degree objective. However, only grades of B or better may be applied toward a graduate degree program in the School of Government and Public Administration. The student must maintain at least a C average in all courses taken in the certificate program. If a D grade is received in any course, the student must repeat that course or take an additional approved substitute.

PREREQUISITE COURSES Three hours: 53.650 Political Analysis, or equivalent.

REQUIRED COURSES To total fifteen hours from the following: 53.680 American Public Policy; 54.610 Public Management; 54.680 Urban Politics; 54.684 Urban Planning or 54.780 Seminar in Urban Affairs; one three hour elective from sociology, business, or economics graduate courses relating to the urban affairs program.

Washington College of Law

Dean Gordon A. Christenson

Associate Dean David B. Lytle

Assistant Dean James M. Holloman

Director of Research in Law and Social Behavior Nicholas N. Kittrie

Law Librarian Patrick E. Kehoe

The Washington College of Law was established in 1896, primarily to permit women, as well as men, to pursue professional studies in law. The founding principle of equal opportunity continues to play a primary role in the school's operation and development. Admission to the Washington College of Law is highly selective, with approximately six hundred students in full- and parttime programs of study. The school seeks a national student body. The program is designed to prepare graduates to be contemporary members of the learned profession of the law and to continue this learning throughout life. The school looks for potential leaders from all cultural backgrounds for preparation in dealing with recognized problems of the present and anticipated problems of the future.

The Washington College of Law is a part of The American University and includes a library of approximately eighty-five thousand volumes. It is noted for its contemporary curriculum, close working relations with faculty, clinical programs, and its law-related institute.

The academic program is enriched by proximity to the center of the nation's legal institutions. First hand glimpses of legal processes, their analysis, and the opportunity to work within these processes make the study of law in the nation's capital especially rewarding. Whether listening to arguments of the nation's best lawyers before the Supreme Court or observing the process of decision within the committees of Congress, the administrative agencies of government, or international agencies, law students will be immersed from the outset in rigorous critical analysis and in the practical arts of the profession. The school is fully accredited by the American Bar Association, the American Association of Law Schools, and the New York Board of Regents. The course of study requires three fulltime years, or the equivalent, at the end of which the J.D. degree is awarded.

For more information as to program and admissions, write for separate catalogue to Director of Admissions, Washington College of Law, The American University, Massachusetts and Nebraska Avenues, NW, Washington, D.C. 20016.



Lucy Webb Hayes School of Nursing

DEAN Laura B. Kummer

FULL-TIME FACULTY

Professor Laura B. Kummer

Associate Professor G. Dhillon, P. Finn, J. Gimble, L. Neiswender, M. Randall

Assistant Professor N. Clark, J. Hallal, G. Keidel, J. Sands, D. Sell, N. Davenport, H. Black

PHILOSOPHY The philosophy of the Lucy Webb Hayes School of Nursing is consistent with the philosophy and purposes of The American University. This consistency is demonstrated in the belief that the basic purpose of the University is the pursuit of knowledge and the nurturing and perpetuation of creative and intellectual activity.

The school believes that an inherent aspect of education is the development of a person with an understanding of his heritage in relation to society, and a conscious sense of human values and an appreciation of life.

The school believes that effective learning occurs when the student is active in the learning process, is motivated in the use of critical thinking and intellectual inquiry, and is guided toward seeing meaningful relationships. This learning is most effective when learning experiences are planned to meet the individual needs of students.

The school believes that professional nursing consists of dynamically interrelated theoretical and service components. Professional nursing strives to prevent illness and to promote, maintain, and restore health, and, when health cannot be maintained, to continue to meet those needs which support the dignity of the individual.

PURPOSE The program in nursing prepares the student for the practice of professional nursing at a beginning level. To achieve this purpose, and in keeping with the definition of professional nursing, the faculty provides the opportunities for the student to: (1) provide direct care to individuals and groups; (2) develop, test, and validate new methods to improve knowledge and care; (3) initiate, implement, and evaluate care for uncommon and complex nursing problems; (4) organize, coordinate, and supervise people involved in the provision of care; (5) participate as a member of the health team in the planning and delivery of care; (6) teach the patient, family groups, and others involved in health care; (7) develop the continuing desire to learn; (8) engage in self-directed study; and (9) participate in professional and community concerns.

FIELD OF STUDY The school educates students in aspects of the biological, physical, and social sciences essential to care for the sick and prevention of illness.

Undergraduate Degree Program

Bachelor of Science

MAJOR IN NURSING

ADMISSION See "Admission to Undergraduate Study" in this publication.

Advanced Placement Applicants may include students from diploma and associate degree programs. Those seeking admittance may request information from the School of Nursing.

Health Requirements In addition to meeting all general University health requirements, students are required to keep current immunizations for diphtheria, tetanus, poliomyelitis, and smallpox. Annual skin testing for tuberculosis is required.

TRANSPORTATION Students assume responsibility for transportation between the University and various facilities used for clinical experience. Students majoring in nursing will find it desirable to have the use of an automobile during the junior and senior years; it is a necessity during the semester in which students are enrolled in the community health nursing course.

CURRICULAR PLAN

FRESHMAN YEAR (1) Fall Semester: 15.120 General Chemistry I; 15.121 General Chemistry I Laboratory; 23.100 Composition and Reading I; 09.101 General Biology I; one social science elective. (2) Spring Semester: 15.130 General Chemistry II; 15.121 General Chemistry II Laboratory; 23.101 Composition and Reading II; one social science elective; one general elective. (3) Summer Sessions: 09.340 Microbiology; 09.341 Microbiology Laboratory.

SOPHOMORE YEAR (1) Fall Semester: 46.200 Nursing I; 46.241 Normal Nutrition; 09.330 Anatomy and Physiology I. (2) Spring Semester: 46.201 Nursing II; 09.331 Anatomy and Physiology II; 46.210 Dynamics of Human Relationships.

JUNIOR YEAR (1) Fall Semester: 46.300 Nursing III; one general elective. (2) Spring Semester: 46.310 Nursing of Children and 46.320 Nursing the Childbearing Family; or 46.340 Psychiatric Mental Health Nursing and 46.450 Introduction to Research in Nursing and one or two electives.

SENIOR YEAR (1) Fall Semester: 46.340 Psychiatric Mental Health Nursing and 46.400 Community Health Nursing; or 46.310 Nursing of Children and 46.320 Nursing the Childbearing Family. (2) Spring Semester: 46.410 Problem Analysis in Patient Care and 46.420 Organization of Patient Care Services; and either 46.600 Community Health Nursing or 46.450 Introduction to Research in Nursing and one or two electives.

If microbiology course work done at another institution transfers to a single American University course unit, then the transfer student should use a half course unit of electives to do further microbiology work to meet the requirement of one and one-half course units of microbiology.

Courses of Instruction

Undergraduate Courses

46.200 NURSING I (c 01.50) Introduction to study and practice of professional nursing. Nursing process is the approach utilized to study man's basic needs. Clinical nursing practice provided with selected, uncomplicated patients. *Prerequisite:* sophomore standing; open to nursing majors only.

46.201 NURSING II (c 02.00) Exploration of selected health problems of adults undergoing medical or surgical therapy. Man's adaptive capacity, his homeokinetic mechanisms, and relevant pathophysiology are discussed. Utilization of nursing process in administering care to adults emphasized. *Prerequisite:* 46.200.

46.210 DYNAMICS OF HUMAN RELATIONSHIPS (c 00.50) Psychodynamic frame of reference used to examine man's behavior throughout the life cycle. Psychoanalytic concepts relevant to the dynamics of human growth and development applied to nurse-patient relationships. Principles of group dynamics applied in small group sessions. (Laboratory component). *Prerequisite:* 46.200.

46.240 NUTRITION NEEDS AND MODERN FOOD (c 00.50) Normal nutrition studied in relation to needs of the individual and demands of world population. Current social, ecological and economic

problems discussed in light of world food needs. Questions about pesticides, food additives, food analogs, "natural" and "organic" foods all given consideration. Open to all university students.

46.241 NORMAL NUTRITION(c 00.50) Individualized programmed course designed to correlate laboratory experiences of Nursing I with study of normal nutritional needs of humans. Student proceeds at own pace, designs own service projects and contracts for a grade. Open to nursing majors only.

46.242 NORMAL NUTRITION AND HUMAN NEEDS (c 01.00) Normal nutrition will be studied in relation to the present day food shortages and needs of the human body. Popular nutrition concepts evaluated and problems of pesticides, food additives and engineered foods given consideration.

46.300 NURSING III (c 03.00) Continuation of 46.201. Care of patients whose needs are complicated by disease and who are treated medically and/or surgically. Special consideration to nurse's role in relation to total plan of care. *Prerequisites:* 46.201; 46.210 or permission of instructor.

46.310 NURSING OF CHILDREN (c 02.00) Study of current pediatric nursing care based on principles of growth and development of individual from infancy through adolescence in health and illness. Special emphasis on helping individual and family cope with effects of illness. *Prerequisites:* 46.300; 46.210.

46.320 NURSING THE CHILDBEARING FAMILY (c 02.00) Family centered nursing care during maternity cycle. Student has the opportunity to help meet needs of the family in the pre-, intra-, and postnatal periods. Special emphasis on teaching and anticipatory guidance. *Prerequisites:* 46.300; junior standing.

46.340 PSYCHIATRIC MENTAL HEALTH NURSING (c 02.00) Psychiatric Mental Health Nursing viewed as an interpersonal process whereby professional nurse practitioner assists an individual and/or groups, family or community to promote mental health, prevent mental illness and help those afflicted cope with the stress of mental illness and assist them toward health. Emphasis given the therapeutic nurse-patient relationship, psychiatric nursing theory and principles and their application in hospital setting and community. *Prerequisites:* 46.210; 46.300.

46.350 COMMUNITY MENTAL HEALTH CONCERNS (c 00.50) Assists student to explore mental health problems of a community. Particular emphasis given to application of mental health concepts in development of a healthy community.

46.390 INDEPENDENT READING COURSE IN NURSING (c 00.25 through 02.00)*

46.400 COMMUNITY HEALTH NURSING (c 02.00) Designed to integrate general and nursing knowledge and skills in planning and providing for comprehensive health care to meet needs of selected individuals, families and groups in community setting. Group health education emphasized. In addition, scheduled community mental health lecture discussions and independent study activities. *Prerequisites:* senior standing and completion of 46.340 or taking 46.340 concurrently with 46.400.

46.410 PROBLEM ANALYSIS IN PATIENT CARE (c 01.00) Problems of patients with complex nursing needs. Students assume increased responsibility for nursing care to meet these needs. Laboratory experiences primarily in intensive care settings. *Prerequisite:* senior standing.

46.420 ORGANIZATION OF PATIENT CARE SERVICES (c 01.00) Application of principles of leadership and group dynamics in organization of patient care in working with professional and auxiliary personnel. *Prerequisite:* senior standing.

46.450 INTRODUCTION TO RESEARCH IN NURSING (c 00.50) Overview of basic research techniques, terminology and essential components of research. Each student designs a small-scale research study. *Prerequisites:* 46.300 or permission of professor.

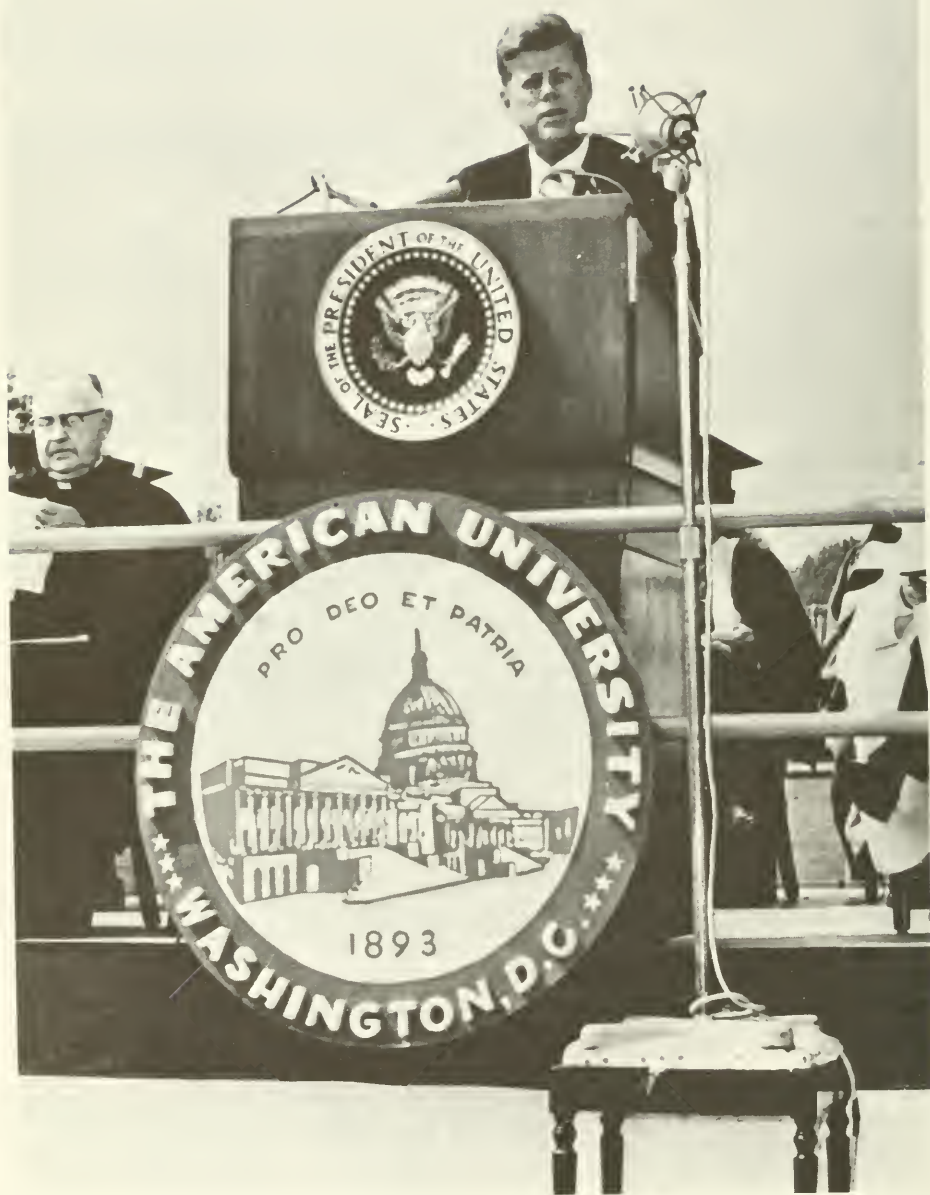
46.490 INDEPENDENT STUDY PROJECT IN NURSING (c 00.25 through 02.00)*

Graduate and Advanced Undergraduate Courses

46.590 INDEPENDENT READING COURSE IN NURSING (s 01.00 through 06.00)*

46.596 SELECTED TOPICS (Non-Recurring) (s 01.00 through 06.00)*

* See description under "General Curriculum Information" in this publication.



College of Public Affairs

DEAN Morris W. H. Collins, Jr.

Associate for Administration Lyle E. Brenneman

Associate for Program Planning Susan W. Torrence

Director, Contract and Grant Programs Emery A. Link

Director, Center for the Administration of Justice

Director, Center for Technology and Administration John M. Richardson, Jr.

Dean, School of Government and Public Administration A. Lee Fritschler

Dean, School of International Service Gregory B. Wolfe

THE FACULTY The College has more than eighty full-time faculty who bring a wide range of academic disciplines and practical expertise to their teaching duties. Many are nationally recognized scholars. Others have distinguished records of public service. The college augments its full-time faculty with an adjunct faculty of eminent governmental officials and other public affairs practitioners who bring to the classroom the special insights gained from their day-to-day professional experience.

For full-time faculty, see faculty listings with each academic unit that follows.

The COLLEGE OF PUBLIC AFFAIRS is committed to the development and maintenance of distinguished educational and research programs in the field of public affairs. Through its four components—the School of Government and Public Administration, the School of International Service, the Center for Technology and Administration, and the Center for the Administration of Justice—the college provides the organizational unity for a comprehensive and conceptually unified approach to the study of public affairs at every level—international, national and local. Each program within the college is designed to serve particular career interests, but all are multidisciplinary, issue and policy-oriented, and uniquely adapted to the educational opportunities inherent in the metropolitan Washington location.

Washington is an excellent laboratory for studying public affairs. The setting provides daily vivid evidence of the interrelationships of domestic and foreign politics and the political, economic, and environmental forces shaping public affairs and public policy both at home and abroad. Students have the opportunity to interact with practitioners in the art of policy making. Internships in private and public organizations lend a practical dimension to the academic programs. Washington's facilities for scholarly research and personal enrichment include such governmental institutions as the Library of Congress, the National Archives, and the Smithsonian Institution, not to mention many specialized departmental and agency libraries.

The College of Public Affairs, drawing on the facilities of the University, the Consortium of Universities of the Washington Metropolitan Area, and the Washington, D.C. community, offers a unique combination of resources for study and practical experience in the field of public affairs. The college offers a comprehensive range of academic and professional programs leading to degrees at the associate, bachelor, master, and doctoral levels.

An education in public affairs prepares students for a rich variety of public service and academic careers. Graduates serve public or private agencies where they help shape or implement policy alternatives. Many teach about public affairs at colleges, universities and secondary schools. Others

seek those broader insights which an education in public affairs brings to pursuits not formally related to their degrees.

CONSORTIUM OF UNIVERSITIES For a description of the Consortium of Universities of the Washington Metropolitan Area, see "General Academic Information and Regulations" in this publication. Through this consortium, a student in the College of Public Affairs has access to services offered by more than 5,000 faculty members, some 15,000 courses, and greatly expanded library facilities.

INTERNSHIPS AND COOPERATIVE EDUCATION OPPORTUNITIES IN WASHINGTON The college provides many opportunities for qualified students to work for course credit as interns in various government, political and private organizations. These opportunities are designed to give students practical involvement in political processes or action programs. For example, a student might work for a congressman, senator, the Department of State or for other organizations directly concerned with domestic or international policy. Students may also participate in cooperative education programs that combine course credit and practical experience. See the Cooperative Education Program section in this publication.

INDEPENDENT STUDY PROJECTS The College of Public Affairs encourages students to engage in independent study projects related to their particular field of interest. These usually take the form of reading, research and often field work in the Washington area, and are arranged directly with a faculty member. Course credit is given.

Undergraduate Study

Undergraduate students have maximum freedom in planning their academic programs to meet personalized learning objectives. They may choose a single major from a number of traditional fields or they may elect combined majors. An interdisciplinary major built around a general theme or concept can be developed by the student and his faculty advisors to meet his particular interests and academic goals.

SPECIAL SEMESTER PROGRAMS The College of Public Affairs offers a series of special programs, each of which constitutes a full semester's course work. These programs include the Washington Semester, Washington Urban Semester, Foreign Policy Semester and International Development Semester. The Washington Semester is operated through a cooperative agreement with 140 member colleges and universities across the country and, under its auspices, students from those member institutions may attend the other three special semester programs as well. It and the Washington Urban Semester utilize the Washington location for intensive field study and research into aspects of government policy and process. A particularly innovative educational approach is employed in the Foreign Policy Semester and the International Development Semester which permits a group of students, guided by a team of professors, to concentrate exclusively on a specific topic or theme during a one semester module. See more detailed special semesters information in the School of Government and Public Administration section in this publication.

STUDY ABROAD The College of Public Affairs provides opportunities for study abroad ranging from the traditional Junior Year Abroad to special programs such as the Year Abroad in Israel. In addition, the summer sessions include courses, workshops and tours abroad which are relevant to the curricula of the college.

SERVICE TO TRANSFER STUDENTS In cooperation with The Wide Horizons Program of The American University, the College of Public Affairs makes a special effort to assist transfer students from junior and community colleges and from four-year institutions. Each transfer student receives extensive personal attention before and after enrollment to ease his transition from the junior and community college to the University. Every effort is made to provide the student with essential information about programs and to help solve his personal, educational and vocational problems through individualized guidance.

Graduate Study

The graduate degree programs in the College of Public Affairs serve a number of diverse educational needs. The largest number of master's programs educate for specific professional careers in government and other not-for-profit organizations at local, national, and international levels. These programs emphasize managerial, analytical, and conceptual skills necessary for professional success in the public service. Other master's programs provide the student with a general understanding of the academic disciplines related to public affairs. Doctoral level programs designed to equip the scholar for a career in research and higher education are offered in the three fields of political science, public administration and international studies.

Administration of Justice

DIRECTOR

Administrative Officer Jenny McGough
Law Enforcement Education Program Coordinator Andrea Baridon
Program Coordinator, Counselor August Kursar

FULL-TIME FACULTY

Professor A. S. Trebach
Associate Professor J. Goldsmith, J. H. Reiman, D. J. Saari, E. C. Viano
Assistant Professor R. I. Weiner
Instructor W. E. Hemple

ADJUNCT FACULTY See listings under part-time faculty in this publication.

ADMINISTRATION OF JUSTICE PROGRAMS The Center for the Administration of Justice offers educational programs leading to a certificate (one year or eight courses), an associate (two years or sixteen courses), a Bachelor of Science (four years or thirty-two courses) and a Master of Science degree in the Administration of Justice (thirty semester hours). The center's curriculum provides a base of knowledge about all institutions operating in the criminal justice system (law enforcement, courts, and corrections). It draws from many perspectives—literature, social sciences, law, humanities, and public administration, among others, to foster greater understanding of justice systems: why and how they relate to one another, and what impact they have on society. Students enrolled in the center's programs may pursue studies on a full-time or part-time basis, on campus and off campus, either in a degree or non-degree capacity.

UNDERGRADUATE CERTIFICATE IN THE ADMINISTRATION OF JUSTICE The certificate is designed primarily for part-time non-degree students who do not have current plans to pursue a degree and who are employed by governmental agencies involved in the administration of justice, civil and criminal. The curriculum introduces the student to basic concepts underlying the system for the administration of justice in contemporary American society. Eight courses are required.

Foundation Requirements 23.100 Composition and Reading I; 23.101 Composition and Reading II; two courses in the social sciences.

Administration of Justice Requirements 73.101 Introduction to the Administration of Justice I; 73.102 Introduction to the Administration of Justice II; 73.201 The Administration of Justice and the Community; 73.220 Criminal Justice and the Constitution.

Undergraduate Degree Programs

Associate in Administration of Justice

MAJOR IN ADMINISTRATION OF JUSTICE

This degree is designed for part-time undergraduate students employed by governmental agencies involved in the administration of justice, civil and criminal. The program introduces the student to

many of the legal, social and political problems in the administration of justice and examines the relationship between the various components of the system for the administration of justice. Sixteen courses are required.

FOUNDATION REQUIREMENTS To total eight courses, including five courses consisting of 23.100 Composition and Reading I, 23.101 Composition and Reading II, and one course from each of the following three study areas; the remaining three courses may be from any study area: (1) general science: biology, chemistry, earth science, logic, mathematics, physics; (2) humanities: art, communication, English (excluding Composition and Reading requirement), history, music, philosophy and religion, performing arts; (3) social sciences: anthropology, economics, history (history courses may be counted in either humanities or social sciences, but not both), sociology, psychology, political science.

CORE CURRICULUM To total six courses: 73.101 Introduction to the Administration of Justice I; 73.102 Introduction to the Administration of Justice II; 73.150 Social Processes and Deviant Behavior; 73.201 Administration of Justice and the Community; 73.220 Criminal Justice and the Constitution; 73.254 History and Philosophy of Criminology.

ELECTIVES Two courses to complete the minimum of sixteen course units.

Bachelor of Science in Administration of Justice

MAJOR IN ADMINISTRATION OF JUSTICE

The Bachelor's degree is designed both for students preparing for careers in the administration of justice and for students already actively engaged in such careers. The core curriculum gives the student a basic foundation in the legal, social and political problems involved in the administration of justice and focuses attention on the relationships between various components of the existing administration of justice system. The major requirements take the student into specific problem areas while maintaining the student's breadth of view of the system as a whole. Thirty-two courses are required.

FOUNDATION REQUIREMENTS To total eight courses, including five courses consisting of 23.100 Composition and Reading I, 23.101 Composition and Reading II, and one course from each of the following three study areas; the remaining three courses may be from any study area: (1) general science: biology, chemistry, earth science, logic, mathematics, physics; (2) humanities: art, communication, English (excluding composition and reading requirement), history, music, philosophy and religion, performing arts; (3) social sciences: anthropology, economics, history (history courses may be counted in either humanities or social sciences, but not both), sociology, psychology, political science.

CORE CURRICULUM To total six courses: 73.101 Introduction to the Administration of Justice I; 73.102 Introduction to the Administration of Justice II; 73.150 Social Processes and Deviant Behavior; 73.201 Administration of Justice and the Community; 73.220 Criminal Justice and the Constitution; 73.254 History and Philosophy of Criminology.

MAJOR REQUIREMENTS To total ten courses, including two courses each from law enforcement and corrections, and one course each from judicial administration and law and society; the remaining four courses may be from any of the areas: (1) law enforcement and police administration: 73.210 Administrative Concepts in Law Enforcement and Public Safety I; 73.211 Administrative Concepts in Law Enforcement and Public Safety II; 73.221 Substantive Aspects of Criminal Law; 73.310 Traffic Planning and Control; 73.311 Introduction to Forensic Science; 73.313 Organized Crime; 73.315 White Collar and Commercial Crime; 73.320 Criminal Procedure; 73.321 Evidence; 73.411 Problems in Forensic Science; 73.510 The Police and the Political System; 73.511 Innovation in Law Enforcement Practice and Theory; (2) corrections: 73.230 Contemporary Corrections in the United States; 73.330 Institutional Corrections; 73.331 Corrections in the Community; 73.430 Administration of Correctional Institutions; 73.431 The Prison Community; 73.532 Innovation in Corrections: Practice and Theory; (3) judicial administration: 73.340 Judicial Administration: Criminal; 73.341 Judicial Administration: Civil; 73.440 Data Processing in Judicial Administration; 73.540 Survey in Judicial Administration; (4) law and society: 73.251 Alcoholism and Society; 73.253 Juvenile Delinquency and Youth Crime; 73.265 Introduction to the Logic of Law and Social Science; 73.312 Drugs and Society; 73.351 Individuals, Institutions, and Justice in America; 73.352 Psychiatry and the Law; 73.396 Selected Topics (Non-Recurring); 73.402 Administrative Justice; 73.450 Prevention of Crime and Delinquency; 73.453 Civil Disorder; 73.454 Violence in America; 73.455 Etiology of Crime; 73.456 Crimes without Victims; 73.458 The Juvenile and the Law; 73.463 The Free Press and the Administration of Justice; 73.465 The American Character and Social Justice; 73.501 The Concept of Justice; 73.502 The Concept of Law; 73.503 Concepts of Social Control;

73.508 Seminar in the Management of Criminal Justice Agencies; 73.550 Problems in the Exercise of Institutional Authority; 73.552 Political Crime; 73.554 Theories in Criminology; 73.557 Victimology; 73.580 Seminar in the Administration of Justice; (5) independent study, research, internship: 73.390 Independent Reading Course; 73.490 Independent Study Project; 73.491 Internship.

ELECTIVES Eight courses to complete the minimum of thirty-two course units.

Graduate Degree Programs

Master of Science in Administration of Justice

MAJOR IN ADMINISTRATION OF JUSTICE

The Master of Science in Administration of Justice (M.S.A.J.) is designed for pre-service students preparing for careers in the administration of justice; for the continuing education of in-service personnel already actively engaged in such careers; or as foundation work for graduate students intending to pursue further graduate studies in subject matter areas of particular relevance to the administration of justice. Students may choose to specialize in any of the following areas: (1) law enforcement, (2) judicial administration, (3) corrections or (4) law and society.

REQUIREMENTS For general graduate requirements for a Master's degree see "Graduate Degree Requirements" in this publication. The student will be required to complete thirty hours of graduate work, including a research requirement for six hours, and maintain a minimum overall average of B. Twenty-four hours must be completed in residence at The American University. The student's program must be approved by his graduate advisor.

ELIGIBILITY A background of relevant undergraduate preparation in the social, behavioral, and administrative or managerial sciences is preferred, but not absolutely required. Pertinent work experience will be considered. A bachelor's degree from an accredited institution and two letters of recommendation from professors or employers are required.

COURSE WORK In consultation with his graduate advisor, the student will be free to take any courses he chooses as he prepares for a general or specific occupational goal. It is expected that he will take courses offered by the center, but he may take course work in other departments as well as in the consortium. In order to receive the degree, however, he must complete at least twenty-four hours, exclusive of the six required in the areas of research. A student is required to take 73.600 Graduate Survey in the Administration of Justice, or the equivalent, and 73.680 Introduction to Social Research, or the equivalent.

COMPREHENSIVE EXAMINATION Although the student may, in effect, design his own course work and graduate program, he will be required to take and pass a comprehensive examination designed to test his (1) general understanding of the actual functioning of the criminal justice system and the normative issues involved in that system, and (2) intensive knowledge in one of the following areas of specialization: (a) law enforcement, (b) judicial administration, (c) corrections, (d) law and society. The student will be urged to stipulate his area of specialization early in his graduate career so that his graduate advisor may assist him in preparation for the comprehensive examination.

Courses of Instruction

Undergraduate Courses

73.101, 73.102 INTRODUCTION TO THE ADMINISTRATION OF JUSTICE I AND II (c 01.00) Two-semester survey of system for administration of justice in America. First semester gives overview of criminal justice system; police, prosecution, courts, and corrections. Second semester highlights major concerns in contemporary administration of justice: functions of criminal law, assessment of crime, juvenile delinquency and youth crime, organized crime, narcotics and drug abuse, role of judiciary, civil litigation, institutional and community corrections. *Prerequisite:* 73.101.

73.150 SOCIAL PROCESSES AND DEVIANT BEHAVIOR (c 01.00) Systematic consideration of conformity and deviance within social structures. Nature of interactions between persons and groups which produce deviance. Effects of labeling, an analysis of social problem of community and individual, understanding processes of social control, social task and service system.

73.201 THE ADMINISTRATION OF JUSTICE AND THE COMMUNITY (c 01.00) Role of administration of justice in life of community, including impact of community on system for administration of justice and system's response. Community perception of police, courts, and corrections; concepts of community relations and public relations. Community control. Effects of prejudice and discrimination, problems of justice in inner city.

73.210 ADMINISTRATIVE CONCEPTS IN LAW ENFORCEMENT AND PUBLIC SAFETY I (c 01.00) Basic principles of administration and management as applied to police function. Emphasis on police organization and management, staff function and police role.

73.211 ADMINISTRATIVE CONCEPTS IN LAW ENFORCEMENT AND PUBLIC SAFETY II (c 01.00) Police operations including patrol, investigation, traffic, juvenile, and special operations. *Prerequisite:* 73.210.

73.220 CRIMINAL JUSTICE AND THE CONSTITUTION (c 01.00) Constitutional limitations of criminal justice system; its processes; implications of federal constitutional protection with respect to police investigation, pre-trial, trial, and post-conviction processes, and definition of offenses.

73.221 SUBSTANTIVE ASPECTS OF CRIMINAL LAW (c 01.00) Substantive criminal law emphasizing statutory criminal law against background of common law. Specific offenses against the person, habitation, property, public peace, morality, and administration of governmental functions. General principles of criminal law including extent to which law attributes criminality to acts or omissions; criminal intent and *mens rea*: attempts, conspiracy, infancy, insanity, and drunkenness. Special defenses, public authority, prevention of crime, self-defense and defense of others, entrapment, mistake and ignorance.

73.230 CONTEMPORARY CORRECTIONS IN THE UNITED STATES (c 01.00) Survey of current correctional thought and practices in U.S. Evolution of modern correctional practices in U.S. Overview of correctional treatment in different types of institutions and community.

73.251 ALCOHOLISM AND SOCIETY (c 01.00) Analysis of alcoholic in terms of social processes which produce him. Society's cultural values, social pressures, response to alcoholic by spouse, family, legal systems, and effects of such reactions examined. Cross-cultural data used.

73.253 JUVENILE DELINQUENCY AND YOUTH CRIME (c 01.00) Development of individual through childhood and adolescence as it relates to delinquency and crime; special characteristics of juvenile and youthful criminality; current principles, policies, and practices for its prevention and control. Factors producing delinquency. Juvenile detention, and juvenile court, training schools, treatment of the offender.

73.254 HISTORY AND PHILOSOPHY OF CRIMINOLOGY (c 01.00) Basic course presenting history of criminological thought, including traditional and contemporary schools of thought.

73.265 INTRODUCTION TO THE LOGIC OF LAW AND SOCIAL SCIENCE (c 01.00) Use and appreciation of forms of logical reasoning and scientific method as applied in law and in social science to problems of the administration of justice. Specific problems in area of justice illustrating basic principles of logic and applied logic. Includes essentials of basic logic such as induction, deduction, truth, fallacies, argument, and validity, but extends to application of logic to decision-making and to scientific method.

73.310 TRAFFIC PLANNING AND CONTROL (c 01.00) Urban transportation problems, with emphasis on problems of safe and efficient movement of vehicular traffic. Application of systems concepts to traffic planning. Social, economic and political implications of traffic planning. Traffic laws and their administration.

73.311 INTRODUCTION TO FORENSIC SCIENCE (c 01.00) Scientific analysis and identification of evidence, identification of documents, special police techniques, interpretation of medical reports, and preparation of reports.

73.312 DRUGS AND SOCIETY (c 01.00) Examination of processes by which people in various societies come to use "mind-altering substances," including caffeine, alcohol, tobacco, amphetamines, barbiturates, hallucinogens, narcotics. Societal response to drugs and drug use. Assumptions and problems attendant upon identifying drug use as a medical or criminal problem. Social and political meanings of drug abuse and addiction. Rehabilitation, education and other methods of controlling drug use.

73.313 ORGANIZED CRIME (c 01.00) Organized crime in U.S.: its impact on society; the need for integrated response by people, government and business. Organized crime as social subculture. Analysis of socioeconomic and political aspects of organized crime, emphasis on internal controls and external relations with various political and economic sectors of society.

73.315 WHITE COLLAR AND COMMERCIAL CRIME (c 01.00) White collar and commercial crime in America: economic and fiscal implications, enforcement problems, fraudulent association, bankruptcy fraud, monopoly and coercive competitive practices, illegal use of securities and credit

cards. Focus on problems of theoretical criminology presented by white collar crime. *Prerequisite:* 73.221.

73.320 CRIMINAL PROCEDURE (c 01.00) Procedural aspects of criminal law; processes of enforcement, investigation, pre-trial procedure, trial procedure and sentencing, post-trial motions, appeals, reviews, and remedies. Focus on police practices emphasizing arrest, search and seizure, bail, preventive detention, interrogation, right to counsel, incompetency and the insanity defense. *Prerequisite:* 73.220.

73.321 EVIDENCE (c 01.00) Analysis of the rules of evidence applicable in criminal cases, including: presumptions and inference; direct and circumstantial evidence; real evidence; testimonial knowledge and opinions evidence; character evidence; the hearsay rule and its exceptions; documentary evidence; confessions, admissions and the privilege against self-incrimination; illegally obtained evidence; witnesses and former testimony. *Prerequisites:* 73.220 and 73.320.

73.330 INSTITUTIONAL CORRECTIONS (c 01.00) Systematic analysis of correctional processes in juvenile and adult institutions.

73.331 CORRECTIONS IN THE COMMUNITY (c 01.00) Probation and parole supervision concepts, pre-release planning, caseload classification techniques, use of probation case-aides, community treatment centers, neighborhood treatment centers. Auxiliary services such as employment, mental health and vocational counselling.

73.340 JUDICIAL ADMINISTRATION—CRIMINAL (c 01.00) Management of criminal process to assure all constitutional rights. Administrative relationships of courts with agencies and individuals involved in criminal justice process: defendants; police and criminal investigation agencies; prosecutors and defense counsel; bail agencies; probation officers; correctional agencies. Grand jury procedures. Petit jury procedures. Protection of integrity of judicial process.

73.341 JUDICIAL ADMINISTRATION—CIVIL (c 01.00) Problems peculiar to civil litigation: personal injury; probate, small claims, landlord and tenant. Protracted litigation. Devices for narrowing issues and expediting litigation. Alternatives to judicial process for dispute resolution. Judicial management problems: record keeping, calendar management, jury service. Administrative relationships of court to other agencies and to public.

73.351 INDIVIDUALS, INSTITUTIONS AND JUSTICE IN AMERICA (c 01.00) Examination of suitability of U.S. system of justice for dealing with institutions by comparing the present status of institutions and individuals in the system of justice. Criteria for assessing abuses and improvements suggested by the public interest, and legal, political, and research action groups.

73.352 PSYCHIATRY AND THE LAW (c 01.00) Survey of basic psychiatric principles including contemporary views of causes, manifestations, courses and treatments of psychiatric and behavioral disorders; trends in use of psychiatric resources in dealing with deviant behavior within and without criminal justice system. Areas examined include incompetence as bar to trial, insanity as defense, civil commitment, drug addiction, alcoholism, psychiatry in processing and treatment of juvenile offenders and rehabilitative efforts of corrections system.

73.390 INDEPENDENT READING IN THE ADMINISTRATION OF JUSTICE (c 00.25 through 02.00)*

73.396 SELECTED TOPICS (Non-Recurring) (c 01.00)*

73.402 ADMINISTRATIVE JUSTICE (c 01.00) Enforcement of private and public rights and duties by agencies in non-judicial sector of government and by private agencies: social security agencies, welfare agencies, mediation and arbitration groups, housing agencies, rate-fixing authorities, utility commissions. Equality of treatment and due process problems in such agencies. Study of nonjudicial techniques and alternatives in dispute-resolution.

73.411 PROBLEMS IN FORENSIC SCIENCE (c 01.00) Detailed examination of specific problem areas involving case studies of investigative techniques, practices and procedures, with emphasis on scientific application thereto. *Prerequisite:* 73.311.

73.430 ADMINISTRATION OF CORRECTIONAL INSTITUTIONS (c 01.00) Analysis of basic organization and objectives of correctional agency. Specific principles covering areas of staff development; relationships of treatment, custodial and support staffs; institutional design; and management.

73.431 THE PRISON COMMUNITY (c 01.00) Social organization in correctional institutions. Inquiry into nature, organization, and aims of the penal system and its effect on groups with which it deals. Interaction between groups within institutions.

* See description under "General Curriculum Information" in this publication.

73.440 DATA PROCESSING IN JUDICIAL ADMINISTRATION (c 01.00) Introduction to concepts of data organization and processing; their application to judicial administration; and survey of capabilities and limitations of computer technology in judicial administration and court management including large volume transactions, jury management, docketing, calendar management, assignment and legal research.

73.450 PREVENTION OF CRIME AND DELINQUENCY (c 01.00) Concept of prevention, programs of prediction, sources of data on high delinquency and criminality areas, community action projects as preventive services.

73.453 CIVIL DISORDER (c 01.00) Close study of Report of the National Advisory Commission on Civil Disorders. Historical review of civil disorders in U.S.; issues involved, actions taken in response to disorder, ultimate resolutions of issues. Special implications of contemporary disorders for system to administration of justice in U.S.

73.454 VIOLENCE IN AMERICA (c 01.00) Analysis of violence in America with emphasis on various ideologies and events that bring about or slacken violence, such as social movements, depressions, war, and political repression.

73.455 ETIOLOGY OF CRIME (c 01.00) Analysis of contemporary theories of economic, political, social and psychological factors contributing to deviance, including poverty, cultural deprivation and conflict, alcoholism and drug addiction, sexual deviation, social and political injustice, gambling and political corruption.

73.456 CRIMES WITHOUT VICTIMS (c 00.25 through 01.00) Selected topics pertaining to crimes without victims. Examples: gambling; sexual deviation; prostitution.

73.458 THE JUVENILE AND THE LAW (c 01.00) Special legal status of the juvenile. Protective services. Incompetence to enter contracts. Compulsory education. Child labor laws. *In loco parentis* actions by state and private institutions. Juvenile and family court movement, with emphasis on non-criminal aspects of administration of juvenile justice: guardianship, dependency, neglect, child support, paternity, adoption.

73.463 THE FREE PRESS AND THE ADMINISTRATION OF JUSTICE (c 01.00) Examination of constitutional guarantee of freedom of press as it pertains to special problems in administration of justice. Free press and law enforcement, fair trial, correctional processes. Problems of administrative secrecy, national security, right to privacy.

73.465 THE AMERICAN CHARACTER AND SOCIAL JUSTICE (c 01.00) Inquiry into influence of America's values upon its system of justice with view to assessing its capacity to meet contemporary demands for social justice under present system. Analysis of contemporary conflict between law and social order.

73.490 INDEPENDENT STUDY PROJECT IN THE ADMINISTRATION OF JUSTICE (c 00.25 through 02.00)*

73.491 INTERNSHIP (c 00.25 through 02.00) Provides students with actual experience in administration of justice through assignment to enforcement, judicial, or correctional agencies under joint supervision of agency officials and University instructors.

Graduate and Advanced Undergraduate Courses

73.501 THE CONCEPT OF JUSTICE (s 03.00) Major philosophical contributions to definition of justice. Attempts are made to analyze relationship of ideal of justice to concrete situations in which issue of justice (civil, criminal, or political) arises.

73.502 THE CONCEPT OF LAW (s 03.00) Analysis of major philosophical approaches to problem of meaning, function, and necessity of law in society. Concept of law in society. Concept of law is examined in its relationship to values, custom, power, and social change, as well as to social theory.

73.503 CONCEPTS OF SOCIAL CONTROL (s 03.00) Empirical and philosophical evaluation of theories of control of deviance in society. Justification of society's right to punish its members, problem of punishment vs. reform, as well as theories of rehabilitation, are among issues examined.

73.505 CONCEPTS IN CRIMINAL JUSTICE MANAGEMENT (s 03.00) Concentrated survey of the field of administration of justice and science of management as applied to it.

* See description under "General Curriculum Information" in this publication.

73.506 JUSTICE, LAW, AND RADICALISM (s 03.00) Quality of social justice in America and meaning of radical critique of contemporary society, such as that of Black Panthers, SDS, New Left, Old Left.

73.508 SEMINAR IN MANAGEMENT OF CRIMINAL JUSTICE AGENCIES (s 01.00 through 03.00) Selected topics in management of criminal justice agencies. Examples: executive development; training programs in criminal justice administration; professionalization; role of the supervisor and middle manager; utilization of offender as agency manpower.

73.510 THE POLICE AND THE POLITICAL SYSTEM (s 03.00) Analysis of police function as instrument of public policy in the U.S. Relationship of police to public and private agencies. Constitutional and pragmatic limitations on law enforcement problems of federalism; policy discretion and selective enforcement, minimum standards, community control, political feasibility. Relationship of police function to social and economic policy. Due process as requirement for ordered liberty.

73.511 INNOVATION IN LAW ENFORCEMENT: PRACTICE AND THEORY (s 03.00) Systematic review of theories underlying attempts at innovation in law enforcement in highly urbanized and metropolitan communities, with special attention to technologically based programs, deployment of specialists, training programs, and utilization of advances in the social and applied sciences.

73.515 POLICY-MAKING IN LAW ENFORCEMENT (s 03.00) Organizational structure of public service agencies, budgeting, personnel selection and training, decision-making, comprehensive planning, interagency relations, intergovernmental relations, as related to law enforcement management, studied through the use of case studies and planning models.

73.516 NEW DIRECTIONS IN LAW ENFORCEMENT MANAGEMENT (s 03.00) Detailed analysis of new approaches to special problem areas, such as causes of crime, selective enforcement, community involvement, professional and ethical standards, the mentally ill, crime without victims, juvenile delinquency, and narcotics, as affected by law enforcement management techniques.

73.517 SEMINAR IN LAW ENFORCEMENT MANAGEMENT (s 03.00) New technologies and special problems in law enforcement management and policy-making.

73.532 INNOVATION IN CORRECTIONS: PRACTICE AND THEORY (s 03.00) Persistent trends in contemporary corrections; pressures for change, centers of change; case studies of innovation.

73.535 INSTITUTIONAL TREATMENT OF OFFENDERS (s 03.00) Development of frame of reference for rational treatment of offenders through description, examination, and practice of treatment methods. Analysis of methods employed by correctional institutions to prepare inmates for reintegration into their environment upon release. Lectures, seminar discussions, readings, workshops, and discussions with actual offenders.

73.536 ADMINISTRATION OF CORRECTIONAL INSTITUTIONS (s 03.00) Analysis of essentials in institutional administration as relate to correctional agencies. Investigation of interrelationship between organizational behavior and treatment programs. Examination of factors involved in correctional decision-making and innovative management techniques through lectures, readings, and workshops.

73.537 SEMINAR IN CORRECTIONAL ADMINISTRATION (s 03.00) Consideration of major problems encountered in administration of correctional institutions.

73.540 SURVEY IN JUDICIAL ADMINISTRATION (s 03.00) Survey of judicial systems with particular stress on urban court problems. Focus with national perspective upon descriptive analysis of judicial systems and their legal, social and political environments. Analysis and discussion of social, legal and political issues related to judicial systems, review of basic trends in this sector of government. Judicial officers invited to participate in discussions.

73.545 JUDICIAL ADMINISTRATION AND COURT MANAGEMENT (s 03.00) Examination of state-of-the-art of court management and of selected relevant topics in judicial administration. Exploration of major trends in judicial court environment. Study of general, civil, criminal, financial, and intergovernmental elements of courts. Consideration of organizational theory, role theory, and social science-related findings relevant to executive decision-making in court systems. Review and discussion of advanced governmental personnel systems.

73.546 MODERN TECHNOLOGY AND MANAGEMENT IN JUDICIAL ADMINISTRATION (s 03.00) Study of modern technology including cybernetics and systems theory from managerial perspective. Review and analysis of recent advances in document management, including theory, costs and

managerial implications. Study of judicial environment and radical political action. Tavistock application groups and research proposal development.

73.547 SEMINAR IN COURT MANAGEMENT (s 03.00) New technologies and special problems in court management.

73.550 PROBLEMS IN THE EXERCISE OF INSTITUTIONAL AUTHORITY (s 03.00) Designed to develop participant's insight into problems of authority relationships at work in institutions. Emphasis on interrelations of objectives, structures, inter- and intra-group dynamics and their effects upon personal and organizational growth and development. Focus of learning is upon problems encountered in exercise of authority, based on competence, power, or both, individual's and institution's responsibility.

73.551 ACTION METHODS AND CRISIS INTERVENTION (s 03.00) Understanding behavior of individuals over whom justice officials exercise authority—using psychodrama and action method techniques.

73.552 POLITICAL CRIME (s 03.00) Conceptual, sociological, and historical study of crimes in political realm, such as revolution, assassination, espionage, acts of civil disobedience and protest. Attempt made to understand significance and sources of contemporary political crime, and response to it.

73.554 THEORIES IN CRIMINOLOGY (s 03.00) Historical and analytical review of theories in criminology and their relationship to contemporary ideas.

73.555 COMPARATIVE JUSTICE STUDIES (s 03.00 through 06.00) On-site review of theories and practices of crime and criminal justice systems of other countries.

73.557 VICTIMOLOGY (s 03.00) Intentional and unintentional behavior of victims of offenses that trigger their own victimization and other relationships to criminal acts explored. Historical review of victimology as special area of study in criminology, current status of academic studies, and U.S. and foreign legislative and non-judicial programs concerned with victims of crimes also receive consideration.

73.580 SEMINAR IN THE ADMINISTRATION OF JUSTICE (s 03.00) Consideration of major problems encountered in administration of justice. Examples: protest in contemporary urban society; theories of prejudice and discrimination; social justice in a planned society.

73.590 INDEPENDENT READING IN THE ADMINISTRATION OF JUSTICE (s 01.00 through 06.00)*

Graduate Courses

73.600 GRADUATE SURVEY IN THE ADMINISTRATION OF JUSTICE (s 03.00) Major problems involved in administration of justice in U.S. Emphasis on relationships between major components of system for the administration of justice: police, courts, and corrections.

73.602 COMPREHENSIVE CRIMINAL JUSTICE PLANNING (s. 03.00) Application of planning concepts to development of comprehensive law enforcement plans under Omnibus Crime Control and Safe Streets Act of 1968. Integration of plans of police, judicial, and correctional agencies into comprehensive crime reduction plan. Identification and definition of objectives. Identification and comparison of alternative courses of action. Resource analysis. Cost-benefit analysis. Identification and quantification of outputs. Criteria for program evaluation. Use of models.

73.603 COMMUNITY CONTROL OF LAW ENFORCEMENT (s 03.00) Research seminar to develop information on various means being used in U.S. to assert and maintain community control over law enforcement agencies, particularly major urban police departments. Police review boards, civilian advisory councils, police-community relations programs. Police reaction to civilian review. Related problems of community control of other bodies of local government, such as school boards, street and park commissions, zoning boards, planning commissions. Public review of judicial performance.

73.608 THE INSTITUTIONALIZATION OF JUVENILE JUSTICE SERVICES (s 03.00) Exploration of social organization of juvenile justice programs from interactionist perspective. Historical review of purposes and practices of programs, as in law enforcement and juvenile courts, and ways in which they contribute to increase in crime and delinquency as opposed to their reduction. Organizational goals, theory of office, informal organizations within organization, and personal belief systems of organizational members examined as affect delivery of services and sacrifice of clients in process.

*See description under "General Curriculum Information" in this publication.

73.615 COMPARATIVE POLICE SYSTEMS (s 03.00) Critical comparative study of different police systems in U.S. with those of selected industrialized foreign countries; includes administration, organization, objectives, and principal functions. Analysis of types and levels of controls over police function and relationships of police to people. Public and police perception of police role within various police systems.

73.616 INTERGOVERNMENTAL RELATIONS IN THE ADMINISTRATION OF JUSTICE (s 03.00) Constitutional bases for distinction between federal, state, and local law enforcement functions. Cooperation and conflict in subject-matter areas of shared enforcement responsibility. Comparative organization of state and federal enforcement agencies. Federal support activities, including enforcement, technical, and information services. Federal program assistance under Omnibus Crime Control and Safe Streets Act of 1968.

73.621 THE CONSTITUTION AND POLICE ADMINISTRATION (s 03.00) Constitutional standards and police practices. Contrast between "due Process" and "crime control" models of criminal justice system. Analysis of Supreme Court decisions on arrest, search and seizure, wiretapping and eavesdropping, entrapment, interrogation and confessions, lineups.

73.622 THE CONSTITUTION AND CRIMINAL PROCEDURE (s 03.00) Constitutional standards and operation of criminal justice system, excluding police practices. Bail, decision to prosecute, scope of prosecution, grand jury proceedings, preliminary hearings, right to counsel, right to speedy trial, plea bargaining, discovery and disclosure, jury trial, trial by newspaper, double jeopardy, post-trial proceedings.

73.630 THE LAW OF CORRECTIONS (s 03.00) Process of law from conviction to release from restraint in its relation to correctional principles and practices. Included: function of courts, probation, corrections, parole; civil rights of convicted and restoration of those lost, and procedures relating to commitment, fines and writs.

73.632 CORRECTIONAL DECISION-MAKING (s 03.00) Decision-making as problem-solving process by managers and workers in correctional setting described and analyzed, with particular attention to reciprocal relationship between decision-maker and his organization. Attributes of decision-maker and offender, techniques of organizational adaptation, and environmental variables which may influence decision-making process are explored.

73.635 COMPARATIVE CORRECTIONAL SYSTEMS (s 03.00) Current approaches in control and treatment of juvenile and adult offenders in U.S. and other countries.

73.636 ADMINISTRATIVE MANAGEMENT IN CORRECTIONS (s 03.00) Identification and analysis of problems and issues confronting the manager in correctional setting. Styles of management, decision-making, and problem solving are explored. Laboratory method of learning utilized; enrollment is limited.

73.637 INTERVIEWING AND COUNSELING IN CRIMINAL JUSTICE (s 03.00) Purpose and principles of effective interviewing. Analysis of individual problems in social functioning and the process of problem solving with criminal justice clients. Emphasis placed on learning to help unmotivated involuntary clients.

73.638 GROUP COUNSELING IN CORRECTIONS (s 03.00) Analysis of major theoretical models for understanding group behavior in correctional settings.

73.639 PRACTICUM: SEMINAR IN GROUP RELATIONS (s 03.00) Advanced course designed to provide practical experiences for criminal justice students and to learn about their own and others' behavior in group situations.

73.646 UNDERSTANDING ORGANIZATIONAL BEHAVIOR (s 03.00) Concepts and tools derived from disciplines of cultural anthropology, social psychology, sociology and psychoanalysis utilized to enhance student's understanding of behavior at work, both intra- or inter-organizationally, e.g., in business, church, government, hospitals, industry, prisons, schools, military, labor unions, etc.

73.652 SOCIOLOGY OF LAW (s 03.00) Consideration of how social values and preferences are embodied in law, both substantive and procedural. Law as diagnostic tool to uncover structural preconditions which are generally tacit or less readily observable. Comparative data and cross-cultural information used.

73.660 CIVIL RIGHTS ENFORCEMENT (s 03.00) Critical evaluation of the adequacy of mechanisms developed for assurance of civil rights in contemporary America. Enforcement problems pertaining to administration of justice, voting, equal employment, housing, public facilities, public accommodations, and educational opportunity.

73.665 PROBLEMS IN LEGAL AND SOCIAL SCIENTIFIC METHODOLOGY (s 03.00) Critical comparison of legal and social scientific methodologies with emphasis on their future as complementary procedures for understanding and articulating social justice. Object to suggest improved bases for legal and social science approaches to problems of justice.

73.670 ACTION RESEARCH AND JUSTICE MANAGEMENT (s 03.00) Principles and techniques of social science research as applied to the management of action programs in criminal justice field.

73.671 RESEARCH TECHNIQUES AND METHODOLOGIES (s 03.00) Practical application of social service theories to problems in the justice field. Development of sophistication in the use of research methodologies on actual cases and problems.

73.680 INTRODUCTION TO SOCIAL RESEARCH (s 03.00) Introduction to social research methods as applied to administration of justice. Emphasis on basic assumptions underlying social science research methods and role of social research in analysis, interpretation, and clarification of problems of the justice system. Also deals with design and execution of research projects, including analysis of relationship between researcher and those he studies. Introduction to scientific method in development of social theory and solution to social problems.

73.681 THE ROLE OF RESEARCH IN CRIMINAL JUSTICE ADMINISTRATION (s 03.00) Basic aims, processes, and limitations of research in criminal justice agencies explored to acquaint those with managerial and supervisory responsibilities with appropriate place and function of agency-based research. Techniques for development and supervision of in-house research and control over outside researchers who come into the organization examined in terms of organizational maintenance and philosophy, ethics, and appropriate utilization and control over the dissemination of research findings.

73.690 INDEPENDENT STUDY PROJECT IN THE ADMINISTRATION OF JUSTICE (s 01.00 through 06.00)*

73.691 INTERNSHIP (s 01.00 through 06.00) Provides students with actual experience in administration of justice through assignment to enforcement, judicial, or correctional agencies under joint supervision of agency officials and University instructors.

73.775 SEMINAR IN THE ADMINISTRATION OF JUSTICE (s 03.00 through 06.00) Consideration of major problems, encountered in administration of justice. Examples: problems in judicial administration; alternatives to use of the judicial process; concepts of justice. *Prerequisite:* permission of instructor.

* See description under "General Curriculum Information" in this publication.

School of

Government and Public Administration

DEAN A. Lee Fritschler

Assistant to the Dean Whitney Stewart

Associate Dean for Graduate Programs Glynn Wood

Director, Public Administration Programs Donald G. Zauderer

Director, Washington Semester Programs David C. Brown

Administrative Assistant, Washington Semester Antoinette B. Miller

Director, Center for State and Local Government Bernard H. Ross

Director of Undergraduate Programs Louise White

Academic Counselor, Graduate Programs Patricia Topping

Academic Counselor, Graduate Programs Jean Belnap

FULL-TIME FACULTY

Professor R. P. Boynton, R. E. Cleary, M. W. H. Collins Jr., C. B. Earle, A. L. Fritschler, C. H. Goodman, J. J. Hanus, L. H. Hattery, M. Meadows, E. V. Mittlebeeler, A. Perlmutter, N. S. Preston, E. S. Robinson, M. Segal, R. B. Smolka, M. P. Walker

Associate Professor M. G. Bonham, C. Bryant, D. H. Koehler, R. A. Lane, H. Lieber, H. E. McCurdy, B. F. Norton, D. J. Peterson, B. H. Ross, J. A. Thurber, G. L. Wood, D. G. Zauderer

Assistant Professor D. C. Brown, S. Hammond, W. L. Hoffman, L. Irwin, B. Y. Kobayashi, J. E. Rossotti, T. A. Timberg, R. D. Whitman

Instructor C. M. Kerwin, D. W. Taylor, J. D. Jones

Professor Emeritus R. M. Bray, G. P. Bush, E. H. Long (Dean Emeritus), H. H. Roth

FIELDS OF STUDY Political theory, American politics, public law, comparative politics, public policy, governmental management, organizational development and change, urban affairs.

THE SCHOOL OF GOVERNMENT AND PUBLIC ADMINISTRATION uses the special opportunities of the Washington, D.C. location for the teaching and study of political science and public administration.

The School's undergraduate program focuses on government and public affairs as an aspect of a broad, liberal arts education. It prepares the student for an enlightened role in national and community affairs. This program leads to a career in public affairs at a junior professional level. It provides a solid and comprehensive foundation for the student who pursues further education before entering a career in public affairs or politics, governmental administration, law, teaching or research.

The graduate program is designed to prepare students for academic or professional careers in public affairs. The masters and doctoral programs in political science and public administration are flexible in order to meet the educational needs of a diversified student population.

Undergraduate Degree Programs

Bachelor of Arts, Bachelor of Science

MAJOR IN POLITICAL SCIENCE

REQUIREMENTS This program for the Political Science major is outlined here in four parts and given in detail in the full undergraduate curriculum following.

Required Courses Two of the following: 53.100 Introduction to Political Theory; 53.130 Introduction to Comparative Politics; 53.150 Introduction to American Government and Politics, or 53.110 Honors and 33.201 World Politics.

Areas of Study Six courses selected from the following areas, including a requirement of at least one and not more than two courses from (5): (1) Political Theory (53.30x course number series); (2) American Government and Political Behavior (53.35x series); (3) Comparative Government and Politics (53.33x series); (4) Government and Public Policy (53.38x series); (5) topic of seminar course in each of the areas of study; (6) other special SGPA courses: 52.100 Washington Summer Seminar (provides one-half course credit applicable to the major); 56.410, 56.411, 56.412 The Washington Semester (all three units required if this is taken; counts as three course units toward general bachelor's degree requirement of thirty-two course units, but only as two courses toward the major); 56.413, 56.414, 56.415, The Washington Urban Semester (same credit applicability as with the Washington Semester); 52.390 Independent Reading Course; 52.490 Independent Study Project; 52.491 Undergraduate Internship in Government and Politics; 52.499 Honors Research in Political Science.

International Relations (Courses offered by the School of International Service.) Political science majors may count up to three such courses, in addition to 33.201, as part of their major and related requirements. Students taking two SIS courses under the major are limited to one SIS course under related social sciences.

Related Course Requirement Four courses beyond the introductory level are required, with no more than two in any one field. Choose from the following areas: administration of justice; anthropology; economics; history; international studies (see above on international relations); psychology; sociology; quantitative areas (in this area courses may be taken at any level); computer science, accounting, statistics.

COMPOSITION AND READING REQUIREMENT See "Undergraduate Degree Requirements" in this publication.

HONORS PROGRAM A freshman honors program, 53.110, is open to new students by selection. Additional honors courses for upper-classmen are available each semester. In order to graduate with honors in political science, students are required to complete successfully several upper-level honors courses, a methodology course and a senior honors project.

MAJOR IN URBAN AFFAIRS

The Urban Affairs major encourages students to develop their program from a variety of options in the fields of anthropology, economics, business administration, history, political science, education, international relations, and technology and management.

Students may elect a double major by combining the urban affairs program with a major in one of the University's other academic units. Members of the Urban Affairs Advisory Committee also assist students in developing skill areas in such fields as communications, statistics, data processing, and environmental management.

Each urban affairs major will work as an urban intern in a public or private urban oriented agency.

PROGRAM (1) An introductory course to urban affairs (optional). (2) Foundation courses (students must select two courses from group (a) and any two other courses): (a) 53.352 Metropolitan politics; 29.326-327 The City in History I and II; 19.315 Urban Political Economy; 65.445 Contemporary Communities; (b) 73.201 Administration of Justice and the Community; 31.571 Ecology and the Human Environment; 21.427 Inner City Education; 03.336 Social Structure; 11.470 Urban Development. (3) Core courses: an urban internship (for two course units); a research methodology course; a seminar in urban affairs. (4) Major related courses: to select seven courses from chosen area. (5) The Urban Semester (four course units; may register for this in lieu of two major related courses, the urban seminar, and one internship course unit).

COMBINED UNDERGRADUATE-GRADUATE DEGREE PROGRAM

The combined bachelor's-master's degree program in Public Administration offers students the opportunity to begin the study of Public Administration as undergraduates and complete two degree programs within five years after their admission to college. The five-year program leads directly from undergraduate study through an internship and advanced professional education to career opportunities in the public service. Program advisors work with students to combine the bachelor's and master's degree requirements into a single, continuous plan of study, usually beginning at the Junior year. Undergraduate majors in many fields may be considered. They take three foundation graduate courses in public administration during the Senior year, thus saving nine credit hours in their overall program.

The five-year program emphasizes managements skills, an understanding of the dynamics of policy making in the public sector, a professional specialty and advanced professional training in public administration. Internship assignments within the program often lead directly to career positions related to the four major areas: urban affairs, governmental management, public policy or organizational development and change.

Undergraduates include skill courses in such fields as statistics, computer science, communications and accounting in their major programs. Students transferring to The American University are eligible for the five year program if they have met the basic requirements for the undergraduate degree.

Washington Summer Seminar

The School of Government and Public Administration offers a special course for advanced college credit for high school juniors and seniors. The curriculum offers systematic study of the major components of the American national government and the political processes that support and affect it. It provides participants with an early experience of college-level study for college credit and opens to them an opportunity to obtain a realistic picture of the way government works. The program is offered every summer. Write to the Director, Washington Semester Programs for information.

Graduate Degree Programs

The School of Government and Public Administration offers the following graduate programs: Master of Arts in Political Science, Master of Public Administration, Doctor of Philosophy in Political Science, and Doctor of Philosophy in Public Administration.

Both of the master's degrees in the School of Government and Public Administration are formulated in order to prepare students for professional careers in public affairs. The doctoral degree programs are primarily designed to give students greater conceptual preparation and research skills in major fields in political science and public administration.

Master's Programs

ADMISSION PROCEDURES AND CRITERIA FOR MASTERS DEGREE Candidates applying for admission to either the Master of Arts in Political Science or the Master of Public Administration programs are evaluated on a competitive basis. Normally this criteria will be a B average or better in their last sixty hours of undergraduate course work. Subject to a 20 percent ceiling, provisional admission may be granted on a lower undergraduate record or on the basis of twelve hours with a better-than-B average in relevant graduate level work. The Graduate Record Examinations are not required for the master's programs but are recommended for superior students who wish to be considered for financial assistance.

For students who are not admissible to these master's programs or who do not wish to obtain a master's degree, the College of Continuing Education offers graduate certificate programs in Urban Affairs and in Science, Technology and Government. For the applicant who has failed to meet the minimum requirements for admission to a master's program, an impressive performance in a certificate program will be a basis for reconsideration.

Candidates for these degrees should also see the "Graduate Degree Requirements" in this publication.

MASTER OF ARTS IN POLITICAL SCIENCE PROGRAMS

The Master of Arts degree in political science is conceived and designed as a professional degree preparatory for careers in the public service. There are three specific professional degree pro-

grams—American Politics, Policy Analysis, and Politics and Economics—which are formulated to build problem solving capabilities useful in a wide range of careers. The master's program in American Politics is an intensive exposure to the substantive material in this area as well as to the skills needed for careers in Congressional affairs, legislative liaison work, campaign management and elections, and private sector organizations which follow legislation in their area of concern. The master's program in Public Policy gives students the foundation necessary to undertake courses in policy analysis and evaluation. Career opportunities in this field are growing in both the public and private sector, ranging from the policy analysts needed in executive departments and on Congressional committee staffs to the many lobbying and consultant organizations at both the national and state level of government.

Both of these degree programs have strong internship programs as part of their design in order to enhance the field experience component essential for career development. The master's program in Politics and Economics is a joint program with the Economics Department. This program enables students to develop skills and acquire substantive knowledge from two disciplines related to a major focus such as urban politics and economics, comparative political and economic development, or national economic policy. Students in these professional masters programs will be equipped to continue into doctoral work, if otherwise admissible, but will have to make up the requirement of the nine hour block of methodology courses entitled *The Conduct of Political Inquiry and Research*.

POLITICAL SCIENCE: AMERICAN POLITICS To total thirty-three semester hours.

Stage I Nine hours. 53.650 Political Analysis; 53.606 Systematic Political Theory; 53.610 Introduction to Quantitative Methods in Political Science. All entering students must take 53.650 first in this sequence of required courses.

Stage II Three courses (nine hours) chosen from among the following:* 53.651 The Legislative Process; 53.652 The Presidency and Executive Branch; 53.653 American Federalism; 53.654 Political Attitudes and Public Opinion; 53.655 Political Parties, Interest Groups, and Lobbying; 53.656 Voting Behavior, Elections, and Campaigns; 53.670 Judicial Process and Policy Making.

Stage III Five courses chosen from the following (fifteen hours): 53.660 Advanced Seminar in American Politics; specialized topics courses in psychology and politics, campaign management, etc.; 53.630 Comparative Governmental Systems; 54.680 Urban Politics

POLITICAL SCIENCE: POLICY ANALYSIS To total thirty-three semester hours.

Stage I Nine hours. 53.650 Political Analysis; 53.606 Systematic Political Theory; 53.610 Introduction to Quantitative Methods in Political Science. All entering students must take 53.650 first in this sequence of required introductory courses.

Stage II Twelve hours comprised of the four courses: 53.614 Quantitative Methods in Political Science; 53.683 Design of Policy Research; 53.682 Foundations of Policy Analysis: Metropolitan and National; 53.684 Public Affairs Laboratory.

Stage III Four courses (twelve hours) chosen either in advanced courses in particular policy areas, e.g., education, health, environment, or housing, or a combination of courses which enhance the candidate's skills within a particular policy area, e.g., computer sciences, public finance, comparative public policy, fiscal policy, intergovernmental relations, and urban politics.

AMERICAN POLITICS AND POLICY ANALYSIS COMPREHENSIVE EXAMINATION The comprehensive examination to be written for these two degree programs will cover the material in Stage II. While this stage is the primary focus for the comprehensive, the material covered in Stage I will be presumed as background. The comprehensives are usually scheduled in November, April, and July. Information concerning the scheduling of comprehensives is available in the Office of Graduate Programs.

POLITICAL SCIENCE: POLITICS AND ECONOMICS To total thirty-three hours.

Stage I Twelve hours. 53.650 Political Analysis; 53.606 Systematic Political Theory; 53.610 Introduction to Quantitative Analysis; 19.503 Introduction to Political Economy. All entering students must take 53.650 first in this sequence of required introductory courses.

Stage II Nine hours. Four different course groupings are available from which the student can

* These lists of courses are not totally inclusive. From time to time the school will want to expand offerings as full-time and adjunct faculty resources allow.

choose. From within each group the student must take three courses. The available groupings focus on comparative politics, American national politics and policy, urban politics, and cross-national politics with an area study.

Stage III Twelve hours. Four different course groupings are available in economics designed to complement the political science courses taken in Stage II. For example, if urban politics grouping is taken in Stage II, urban economics is taken in Stage III. Details of the precise options are available in the "Counseling Brochure," Office of Graduate Programs.

This degree program requires that two comprehensive examinations be passed. One comprehensive on Stage II is given by the School of Government and Public Administration, and one on Stage III is given by the Department of Economics.

POLITICAL SCIENCE To total thirty-three hours.

Core Requirements 53.611 Conduct of Political Inquiry and Research I and one of the following: 53.612 Conduct of Political Inquiry and Research II; 53.600 Modern Political Theory; 53.606 Systematic Political Theory; 53.603 Marxist and Non-Marxist Socialism.

First Field Four courses (twelve hours) taken from within any of the following fields: comparative politics, American government and political behavior, political theory, or public law.

Second Field Four courses (twelve hours) or seminars elected according to the needs and interests of the student. These electives can be chosen from among any of the offerings in political science, public administration, or other departments of the University.

FIELD EXPERIENCE PROGRAMS All of the M.A. programs, excepting the joint program in Politics and Economics, are designed so that field experience gained through an internship or cooperative education program is one part of the degree. Field experience education can be taken for three or six hours of credit.

MASTER OF PUBLIC ADMINISTRATION

The Master of Public Administration program (with substantive emphases in governmental management, public financial management, urban affairs, public policy, organizational development and change, international management, and management science) is designed for students who want to build careers as professional managers in government. The curriculum is designed to provide the concepts, tools, and skills of public management. The core courses which are interdisciplinary in nature, provide all students with a foundation in public management. The completion of these courses leads to various fields of advanced specialization.

Students have considerable latitude in constructing a specialization package according to their professional interest and needs. Governmental management focuses on the perspectives and skills of the generalist manager in areas such as planning and control, labor relations, public management of science, contract management. Urban affairs focuses on planning, finance, land use, metropolitan decision-making, etc., all basic to the preparation of an urban administrator. The field of public financial management is designed to build expertise in the financial issues and problems facing all levels of government.

Public Policy courses deal primarily with techniques of public program evaluation which are being used increasingly to evaluate government programs and measure productivity. Organizational development and change utilizes the concepts and techniques of social psychology in preparing students to diagnose organizational problems and influence positive change.

Courses in International Management prepare students for careers in international organizations, private foundations and associations, and federal agencies. Management Science courses, offered in conjunction with The Center for Technology and Administration, focus on the applications of computer technology, systems analysis and operations research in managerial problem solving.

Students can also build course emphases in political science, health care, transportation, environmental management and many other areas of specialization offered in the College of Public Affairs and other academic units at The American University and through the Consortium of Universities of the Washington Metropolitan Area.

CORE COURSES Five courses (fifteen hours). 53.610 Public Management; 54.660 Methods of Problem Solving; and three of the following: 54.650 Leadership for Public Management; 54.617 Administrative Law; 54.612 The Politics of Administration; 54.618 Public Managerial Economics or 54.630 Public Financial Management.

MANAGEMENT SKILL MODULES Two modules (four hours). Modules include: Communication Skills: Writing for Public Management; Communication Skills: Oral Presentation for Public Management; Budget Preparation; Computer Technology; Group Leadership. Other modules announced each semester.

INTERNSHIP OR COOPERATIVE EDUCATION None to two courses (zero to six hours). Students are strongly encouraged to participate in the field placement programs. These programs provide students with the opportunity to test a career decision, to build skills, and to gain access to a professional community. Campus seminars are provided to assist the student in examining the experience. The field experience programs can be taken for three or six hours of credit.

ADVANCED SPECIALIZATIONS Five to seven courses (fifteen to twenty-one hours). Governmental Management; Public Financial Management; Management Science; International Management; Research for Management; Urban Affairs; Public Policy; Organizational Development and Change; Health Care Administration; Urban Transportation; the Administration of Justice.

Students may take five, six, or seven courses for advanced specialization, depending upon the number of hours credit for field experience education. If a student elects six hours credit for the internship or for cooperative education, he may take five elective courses. If no courses are selected under the field experience section, the student can take seven elective courses.

Students may take courses in other departments in the University—such as Economics, Communications, Business Administration, the School of International Service, the Center for the Administration of Justice.

Courses may be selected from a single category of options, or students may construct a package from diverse areas of the curriculum. There must, however, be a clear professional rationale for these choices.

COMPREHENSIVE EXAMINATION M.P.A. students are required to take a comprehensive examination over material in the core courses. Research skills taught in the Methods of Problem Solving course will not be covered in the comprehensive examination. Students normally take the comprehensive examination in the last semester of the program.

Each master's degree student will consult with the graduate office for advice and assistance in the program. The student is encouraged to consult with counselors, faculty and professional administrators in the Washington community in constructing their program of study.

Doctor of Philosophy

MAJORS IN POLITICAL SCIENCE, PUBLIC ADMINISTRATION

The doctoral programs in political science and in public administration are primarily theoretical in emphasis. The doctoral student acquires an intellectual grasp of special fields and advanced research skills as well as proficiency in synthesizing diverse theoretical orientations. With this background, the student is then prepared for either a professional research or college teaching career.

ADMISSION PROCEDURES AND CRITERIA Applicants for doctoral programs will be considered and admitted only for the Fall term of each year. February 1 is the deadline for application for admission for the following September. All applicants must have taken the verbal and quantitative sections of the Graduate Record Examination.

Preference is given to applicants for full-time study, with selective admission for part-time study. While the highly qualified part-time doctoral student may be admitted in exceptional cases, the student normally will be expected to devote one year to full-time course and seminar study at some point during the first three academic years after admission.

The normal minimum for consideration is a 3.20 average on a 4.00 scale in the last sixty hours of undergraduate work, and a master's degree with a better than B average. However admission is granted competitively by selection of a limited number of the best applicants and the recent cut-off point on such admissions has been approximately a 3.70 average in a master's program. For applicants who are exceptional in some compensating respect, provisional admission will occasionally be granted on records which do not meet these standards.

DEGREE REQUIREMENTS The doctoral programs in the School of Government and Public Administration have been developed to ensure the education of competent scholars, not to satisfy an arithmetic accumulation of credit hours. While the minimum requirement is sixty hours of graduate work plus twelve hours of dissertation seminar, the more significant criterion is the adequacy of

the student's preparation for comprehensive examinations. This may require more than sixty hours of course work.

At a minimum, the doctoral student must have satisfied the equivalent master's degree requirements. All doctoral students must take, in addition to the core required courses, one symposium in each comprehensive field. Except for the requirements and the sixty hour minimum, each student will be the judge of the student's own need for any particular course in any of the student's chosen fields. The requirements are: (1) Core required courses: *Conduct of Political Inquiry & Research I (06.00); *Conduct of Political Inquiry & Research II (03.00); one course in political theory; (2) qualifying examination; (3) tools of research; (4) comprehensive examinations; (5) dissertation and oral defense.

PRACTICUM AND ADVISORY RELATIONSHIPS Each full-time doctoral student must participate in a teaching and research practicum. This practicum provides the student with a range of professional experience: assisting in research, supervising internships, and teaching undergraduate courses. Through participation in this practicum, students will also consult with the Associate Dean for Graduate Programs for advice and assistance with their programs. The student is expected eventually to select a faculty advisor as appropriate to the student's own interests and objectives.

ADVANCEMENT TO CANDIDACY The student must apply for advancement to candidacy not later than the semester in which he completes eighteen hours of graduate work in his doctoral program. Completion of the nine hour bloc of courses with grades of B or better and an external examination over the material is the minimum qualification for advancement to candidacy. In addition, the student must maintain the quality requirement and may be asked to sit for an oral examination.

DOCTORAL COMPREHENSIVE EXAMINATIONS The comprehensive examination fields are listed below. The student must take written examinations in each of three fields and an oral examination which covers all three of the fields. Students are encouraged to select one of their comprehensive fields from outside the School of Government and Public Administration. Examinations are scheduled in November and April. It should be noted that the student is required to select a fourth field of concentration, which may or may not be from one of the listed examination fields. The student must take a minimum of nine hours of graduate work in this field with a B average.

PH.D. COMPREHENSIVE FIELDS (1) Political Science: 53.60 Political Theory; 53.63 Comparative Government and Politics; 53.65 American Government and Political Behavior; 53.67 Public Law. (2) Political Science and Public Administration: 53.68 Public Policy. (3) Public Administration: 54.68 Urban Affairs; 54.65 Organizational Development and Change; 54.61 Governmental Management.

TOOLS OF RESEARCH Two tools of research are required for the doctoral degree to be certified through proficiency examinations or by completion of specific courses as prescribed by the administering department. One tool of research must be certified before admission to comprehensive examinations is granted. The second tool of research must be certified before final approval of the dissertation proposal.

For both doctoral programs, statistics is presumptively required as one of the two tools. This tool of research can be satisfied by passing the SGPA course and examination in quantitative methods in political science. The other tool of research may be a foreign language, mathematics, educational and psychological tests and measurements, or computer systems. Both tools may be satisfied by demonstration of high proficiency in statistics and/or mathematics. For strong reasons, the Associate Dean may approve a substitution for the presumptive tool requirements.

DISSERTATION AND ORAL EXAMINATION A dissertation is initiated by the submission of a dissertation proposal by the candidate and approval of the proposal by at least three faculty members and the Associate Dean. The subject of the dissertation will normally be expected to lie within the boundaries of one of the candidate's four fields of specialization.

The basic standard for a dissertation is high quality original research directly relevant to the student's doctoral program. A proposal may be rejected for unacceptability of subject, inadequacy of the proposed concept and approach of the research, or because there is no full time SGPA faculty member who is academically competent and available to supervise the project proposal. If the student is unable to fulfill any of these requirements, his candidacy may be terminated at this time.

After approval of the proposal, the dissertation is undertaken through registration for twelve hours of dissertation seminar and supervision of the dissertation committee. The dissertation committee determines whether or when the candidate has completed an acceptable dissertation for an oral

*These courses must be passed with a B or better.

defense. If, in the judgment of the committee, the candidate is unable to do so after full effort and opportunity, the committee may recommend to the Associate Dean that the student's candidacy be terminated for this reason.

After the oral examination, the committee determines conclusively whether the dissertation and the examination are acceptable as satisfactory completion of the candidate's doctoral program requirements.

PROCEDURAL REGULATIONS FOR DOCTORAL AND MASTERS DEGREES For procedural regulations governing graduate degree requirements, consult "Graduate Degree Requirements" in this publication with regard to readmission, the transfer of credit, statutes of limitations, and provisional admission.

TIME LIMITS FOR TRANSFER OF CREDIT Unless it was part of a completed degree program, graduate work taken more than ten years before admission or readmission will not be applied or accepted as transfer credit.

QUALITY REQUIREMENT An average of better-than-B in all graduate work is required for doctoral candidates. This requirement is higher than the University requirement of 3.00 for good standing and will normally be interpreted as a requirement of 3.25 or better.

For master's students, a B average is required. The semester following that in which the student's grade point average fell below 3.00, the student is put on academic probation. Failure to bring the grade point average back up to 3.00 normally results in termination.

Courses of Instruction

Undergraduate Courses

POLITICAL THEORY

53.100 INTRODUCTION TO POLITICAL THEORY (c 01.00) Introduction to some major concepts of both classical and contemporary political theorists and how these ideas may be empirically tested. Principal ideological conflicts today.

53.101 INTRODUCTION TO POLITICAL SCIENCE HONORS (c 01.00) Two semester course combining study of major political thinkers and political science methodology with an analysis of issues of contemporary significance. Fulfills the introductory requirements for political science majors. *Prerequisite:* by invitation.

53.300 MODERN POLITICAL THOUGHT (c 01.00) Analysis of major political thinkers from Renaissance to twentieth century.

53.400 TOPICS IN POLITICAL THEORY Special subjects in political theory.

POLITICAL SCIENCE RESEARCH

53.111 PUBLIC AFFAIRS LABORATORY (c 00.50 through 01.00) Empirical field research projects in political science workbook experimentation in Washington political community; laboratory experimentation or simulation exercises on current policy issues. Offered in conjunction with introductory SGPA courses.

53.311 PUBLIC AFFAIRS LABORATORY (c 00.50 through 01.00) Description same as 53.111. This laboratory offered in conjunction with upper-level SGPA courses.

43.312 SCOPE AND METHODS OF POLITICAL INQUIRY (c 01.00) Examination of selected major works in empirical political science to see how contemporary social science is conducted. Applications of some basic data gathering and analytic techniques to student formulated problems.

53.410 TOPICS IN METHODOLOGY (c 01.00) Special topics in methodology.

COMPARATIVE POLITICS

53.130 INTRODUCTION TO COMPARATIVE POLITICS (c 01.00) Introduction to political change and development in selected industrial and industrializing countries. Comparative study of their decision-making processes and logic of comparative method.

53.330 COMPARATIVE POLITICS OF INDUSTRIAL SOCIETIES (c 01.00) Political change and development of selected industrial societies: Britain, France, West Germany, Soviet Union, and Japan.

Comparative study of political leadership participation, content of public policy, and policy making process. Emphasis on the socio-economic, cultural and international setting of politics.

53.331 THIRD WORLD POLITICS (c 01.00) Political order and change in selected countries of Africa, Asia and Latin America, with emphasis on the themes of nation-building, ideologies of development, interplay of elites and masses, and role of military.

53.430 TOPICS IN COMPARATIVE POLITICS (c 01.00) Special topics in comparative politics.

AMERICAN POLITICS

53.150 INTRODUCTION TO AMERICAN GOVERNMENT AND POLITICS (c 01.00) American democratic theory, constitutional and political development of national government, changing relationships of national, state, and local governments. Emphasis on major national institutions involved in policy making and socio-economic functions which they perform. Prerequisite for many upper-level SGPA courses. May be waived for students who have passed the American Government examination of the College Level Examination Program (CLEP).

53.350 POLITICAL BEHAVIOR (c 01.00) Elections and electoral behavior. Roles of public opinion, interest groups, social movements, and political parties in plural societies. Problems in political participation, communication, representation, and leadership.

53.351 CONGRESS AND THE PRESIDENCY (c 01.00) Role of national legislature and executive in policy making process.

53.352 METROPOLITAN POLITICS (c 01.00) Growth of cities and metropolitan areas. Evolution of city and its surrounding areas as focus of public policy. Analysis of decision-making techniques, intergovernmental relations, and ethnic politics. Implications of social planning, urban violence, financial resources and suburban attitudes on metropolitan politics and policy making.

53.353 STATE GOVERNMENT AND POLITICS (c 01.00) Introduction to state government, Federalism, relationships among state and local governments, regional, state, and local cooperation. Emphasis on major state institutions involved in policy making and socio-economic functions which they perform.

53.450 TOPICS IN AMERICAN POLITICS (c 01.00) Special topics in American politics.

PUBLIC LAW

53.370 LAW AND THE POLITICAL SYSTEM (c 01.00) Basic concepts of law; American legal system. Analysis of role of courts, their action and processes, in policy-making process. Problems of law enforcement and correctional system.

53.371 AMERICAN CONSTITUTIONAL DEVELOPMENT (c 01.00) Nature of constitutionalism and role of constitutional interpretation; judicial power and review. Consideration of important Supreme Court decisions and their impact on development of the American political system.

53.372 CIVIL RIGHTS AND LIBERTIES (c 01.00) Analytical treatment of Supreme Court policy making in area of civil liberties, with emphasis on First and Fourteenth Amendments, including constitutional doctrines, current trends, and prospective problems.

53.470 TOPICS IN PUBLIC LAW (c 01.00) Special topics in public law.

PUBLIC POLICY

53.380 GOVERNMENT AND SOCIAL POLICY (c 01.00) Forces shaping government's role in social and economic policy. Analysis of substantive policy and program areas: labor, anti-trust, transportation, and health, welfare, civil rights, education, urban and environmental policy.

53.480 TOPICS IN PUBLIC POLICY (c 01.00) Special topics in public policy.

PUBLIC ADMINISTRATION

54.300 INTRODUCTION TO PUBLIC ADMINISTRATION (c 01.00) Theories, organization and management of the public sector. Substantial emphasis on policy making within federal executive branch.

54.410 TOPICS IN GOVERNMENTAL MANAGEMENT (c 01.00)

54.430 TOPICS IN FINANCIAL MANAGEMENT (c 01.00)

54.440 TOPICS IN MANAGEMENT SCIENCE (c 01.00)

54.450 TOPICS IN ORGANIZATIONAL DEVELOPMENT AND CHANGE (c 01.00)

54.460 TOPICS IN RESEARCH FOR MANAGEMENT (c 01.00)

54.480 TOPICS IN URBAN AFFAIRS (c 01.00) Special topics in public administration.

SPECIAL COURSES AND INTERNSHIPS

All counted as one course unit, unless otherwise arranged with the Director of Undergraduate Academic Counseling.

52.390 INDEPENDENT READING COURSE IN GOVERNMENT (c 00.25) through 02.00)*

52.490 INDEPENDENT RESEARCH PROJECT IN GOVERNMENT (c 00.25 through 02.00)*

52.491 UNDERGRADUATE INTERNSHIPS IN GOVERNMENT AND POLITICS (c 01.00) Specially arranged with supervising faculty member and Director of Undergraduate Academic Counseling, SGPA.

52.499 HONORS RESEARCH IN POLITICAL SCIENCE (c 01.00)

WASHINGTON SUMMER SEMINAR

52.100 WASHINGTON SUMMER SEMINAR (c 00.50) Special course for advanced college credit for high school juniors and seniors. Systematic field study of major components of American national government and political processes that support and affect it. Examination of selected policy issues. Offered every summer.

WASHINGTON SEMESTER

56.410 WASHINGTON SEMESTER SEMINAR I (c 01.00)

56.411 WASHINGTON SEMESTER SEMINAR II (c 01.00)

56.412 WASHINGTON SEMESTER RESEARCH PROJECT (c 01.00)

Each unit counts as one undergraduate course. All three units must be taken together. For advanced students enrolled from cooperating institutions, through formal inter-institutional agreements of this program. Study of U.S. Government in action, through seminars with senior representatives of U.S. government agencies, reports, conferences, lectures, and guided seminar evaluations of experience. The research project is an individual analytical report prepared under the guidance and counseling of the academic directors of the program. *Prerequisite:* Selection.

Washington Semester courses, as listed above, are primarily for students who come from other institutions under the arrangements of the Washington Semester Program. Selected students from The American University may participate each semester. For AU students so selected, only two of those three course units will apply to the requirements for the political science major, but this Washington Semester work may be used for the achievement of honors in political science in the same way as the honors courses which are listed above.

WASHINGTON URBAN SEMESTER

56.413 URBAN SEMESTER SEMINAR I (c 01.00)

56.414 URBAN SEMESTER SEMINAR II (c 01.00)

56.415 URBAN SEMESTER SEMINAR III (c 01.00)

Each unit counts as one undergraduate course. All three units must be taken together. Open, by selection, to qualified undergraduates from The American University and to students from other colleges, including Consortium schools and member institutions of the Washington Semester Program. Study of urban problems and politics of intergovernmental policy-making in urban affairs. Field seminars with local, state, and federal officials, interest groups, and others knowledgeable and active in urban affairs. Research project is an individual analytical report prepared under the guidance and counseling of the academic directors of the Program. *Prerequisites:* Selection.

For AU students, only two of the three courses will apply to the requirements for the political science major, but all three will count toward the total course requirements for the bachelor's degree.

56.416 WASHINGTON SEMESTER INTERNSHIP (c 01.00) Open only to students in the Washington and Urban Semesters, as arranged with their academic directors.

* See description under "General Curriculum Information" in this publication.

Graduate and Advanced Undergraduate Courses

SPECIAL COURSES AND INTERNSHIPS

52.520 SUMMER TRAVELING SEMINAR (s 03.00 through 06.00) Approximately 45–60 days. Overseas travel-study courses as announced, under direction of senior faculty member.

53.500 STUDIES IN POLITICAL SCIENCE (s 03.00) Open to graduate students and juniors and seniors with permission of Director of Undergraduate Programs.

54.500 STUDIES IN PUBLIC ADMINISTRATION (s 03.00) Open to graduate students and juniors and seniors with permission of Director of Undergraduate Programs.

Internships, Readings, and Research

54.511 APPLIED ADMINISTRATIVE MANAGEMENT (s 03.00) Special purpose course arranged and available only for specially organized groups of foreign participants.

52.590 INDEPENDENT READING COURSE IN GOVERNMENT (s 01.00 through 06.00)*

Graduate Courses

All courses listed below carry graduate credit. The presentation of this curriculum is organized as follows: Political Science, Public Administration, Special Courses and Internships. These courses are open only to graduate students in degree programs or to non-degree graduate students who meet the stated prerequisites.

POLITICAL SCIENCE

Political Theory

53.600 MODERN POLITICAL THEORY (s 03.00) Classical tradition of political science as systemic inquiry, through intensive analysis of works of major political theorists from Machiavelli to twentieth century; applications to current questions of theory and method.

53.602 CONTEMPORARY POLITICAL IDEOLOGIES (s 03.00) Background and major issues of twentieth century thought; concept of ideology; nature and functions of ideology; major contemporary ideologies and doctrines.

53.603 MARXIST AND NON-MARXIST SOCIALISM (s 03.00) Origins and characteristics of socialist philosophies, ideologies, and doctrines, their relation to derivative political movements; significance for ideological orientations of developing and communist nations.

53.604 AMERICAN POLITICAL THOUGHT (s 03.00) Major concepts and ideas of American political theory and their influence on development of American system of government.

53.605 COMPARATIVE POLITICAL THEORY (s 03.00) Comparative approach to traditional and modern works in political theory of Asian, African, and European civilizations; emphasis on their utility and relevance for contemporary political analysis.

53.606 SYSTEMATIC POLITICAL THEORY (s 03.00) Tradition of political theory from Plato onward applied to current political research and to contemporary theory development.

53.607 ANALYTIC SOCIAL THEORY (s 03.00) Analytic approach to empirical social theory and research in several social sciences from the perspective of political research; special attention to theory application and problems of social change.

53.608 EARLY POLITICAL THOUGHT (s 03.00) Political thinkers, theorists, and movements from Plato through Middle Ages.

53.609 RADICAL CRITIQUES OF SOCIAL SCIENCE (s 03.00) Historical development and critical analysis of basic concepts and methods of social and political research; examination of recent radical critiques; evaluation of new approaches.

53.700 SEMINAR IN POLITICAL THEORY (s 03.00) Selected topics in political theory.

53.705 GENERAL SYMPOSIUM IN POLITICAL THEORY (s 03.00) Synthesizing seminar for those who take political theory as comprehensive field; also, to satisfy requirements for research and general seminars under previous graduate degree programs.

* See description under "General Curriculum Information" in this publication.

Political Science Research

53.610 INTRODUCTION TO QUANTITATIVE METHODS IN POLITICAL SCIENCE (s 03.00) Application of techniques of bivariate analysis to measurement of political behavior; particular emphasis techniques of relevance for political scientists and students of public administration.

53.611 THE CONDUCT OF POLITICAL INQUIRY AND RESEARCH I (s 06.00) Concepts, approaches, and methodologies of political science research; philosophy of science, scientific modes of inquiry, and sociology of knowledge; research design, theory and measurement; application of the computer methods and techniques of analysis.

53.613 THE CONDUCT OF POLITICAL INQUIRY AND RESEARCH II (s 03.00) Introduction to formal theory; sets, counting and probability; vectors; economic bases of political behavior; game theory.

53.614 QUANTITATIVE METHODS IN POLITICAL SCIENCE (s 03.00) Application of techniques of multi-variate analysis to measurement of political behavior.

53.619 STUDIES IN POLITICAL RESEARCH (s 03.00) Selected topics in political science research.

53.710 SEMINAR IN POLITICAL RESEARCH (s 03.00) Advanced seminar offerings in political research.

Comparative Politics

53.630 COMPARATIVE GOVERNMENTAL SYSTEMS (s 03.00) comparative study of national decision making; emphasis on its socio-economic, cultural, and international context; cross-national analysis of political parties, military elites, bureaucracies, and urbanization and effects on political change.

53.631 DEVELOPMENTAL CONFLICTS AND POLITICAL CHANGE (s 03.00) Conflicts confronted in development and their concomitant political and social change. Material concerned with third world countries, and issues—integration, communication, bureaucratization, militarization, socialization—and their parallels in post-industrial politics. Trade-offs between equity and growth, national sovereignty and international cooperation on developmental problems.

53.632 COMPARATIVE URBAN POLITICS (s 03.00) Comparative and cross-national study of urban politics and government, with special attention to the problems of migration, planning, political participation; urban policies compared and contrasted in their impact upon urban growth problems.

53.633 COMPARATIVE POLITICAL PARTIES (s 03.00) Comparison of party structures, their functioning, and political participation in competitive systems. Theories of party origin, change and development in industrial and agrarian societies; interrelation of political, cultural, socioeconomic structure, and party operation.

53.634 COMPARATIVE BUREAUCRACIES (s 03.00) Problems, theories, and trends in comparative administration; study of conceptual foundations, structural characteristics, and functional performances of administrative establishments in developed and developing nations.

53.635 COMPARATIVE INTEREST GROUPS AND ELITES (s 03.00) Analysis of interest groups and elites in political participation, decision-making, social mobilization and political change; interest group/elite interaction in different political systems.

53.637 COMPARATIVE POLITICS: COUNTRIES (s 03.00) Special topics dealing with the Soviet Union, Western Europe, the Middle East, Africa, Communist China, Japan and others.

53.639 STUDIES IN COMPARATIVE POLITICS (s 03.00) Selected topics in comparative politics.

53.735 GENERAL SYMPOSIUM IN COMPARATIVE POLITICS (s 03.00) Synthesizing seminar for those who take comparative politics as comprehensive field; also, to satisfy requirements for research and general seminars under previous graduate degree programs.

American Politics

53.650 POLITICAL ANALYSIS (s 03.00) Introduction to major issues and controversies in political science; their relevance to contemporary political analysis; the relation of the following factors to public policy and political change: political development, participation, power, bureaucracies, and political parties; selected perspectives from related social sciences when applicable.

53.651 THE LEGISLATIVE PROCESS (s 03.00) Function of legislative branch in American governmental system; emphasis on Congress and comparative consideration of state legislature.

53.652 THE PRESIDENCY AND THE EXECUTIVE BRANCH (s 03.00) Analysis of Presidential roles and

function of federal executive branch; problems of presidential personality, executive-legislative relations, and policy formation.

53.653 AMERICAN FEDERALISM (s 03.00) Constitutional and functional interrelationships of national, state, and local government; concept of federalism in various dimensions of American life; comparison of the role of states in the American federal system.

53.654 POLITICAL ATTITUDES AND PUBLIC OPINION (s 03.00) Alternative explanations of political attitudes and behavior; political socialization; personality; sources of beliefs and behavior; theories of opinion change; small groups and political behavior; effects on communication on attitudes.

53.655 POLITICAL PARTIES, INTEREST GROUPS, AND LOBBYING (s 03.00) Approaches to study of American political parties; party organization; party in electorate and in government; party reform and the future of American parties; interest group behavior; interaction with parties, elites, and executive agencies and the Congress.

53.656 VOTING BEHAVIOR, ELECTIONS AND CAMPAIGNS (s 03.00) Political participation and voting behavior in U.S. primaries and elections; management of campaigns; mass media and political organizations.

53.659 STUDIES IN AMERICAN POLITICS (s 03.00) Selected topics in American Politics.

53.660 ADVANCED SEMINAR IN AMERICAN POLITICS (s 03.00) Advanced seminar offerings.

53.755 GENERAL SYMPOSIUM IN AMERICAN GOVERNMENT (s 03.00) Synthesizing seminar for those who take this area as comprehensive field; also taken to satisfy requirements for research and general seminars under previous graduate degree programs.

Public Law

53.670 JUDICIAL PROCESS AND POLICY MAKING (s 03.00) Basic concepts of jurisprudence; study of American legal system; analysis of federal, state, and local judicial processes and decision-making; actors and roles in judicial process.

53.674 CONSTITUTIONAL LAW AND POLITICS (s 03.00) Involvement of American courts in such issues as legitimacy, conflict resolution, and representation; courts as political actors with respect to federalism; powers and limitations on government; advancement of individual and group interests and rights.

53.678 COMPARATIVE PUBLIC LAW AND POLICY (s 03.00) Anthropological, historical, philosophical and behavioral approaches to study of public law and conflict resolution.

53.679 STUDIES IN PUBLIC LAW (s 03.00) Selected topics in public law.

53.770 SEMINAR IN PUBLIC LAW (s 03.00) Advanced seminar offerings.

53.775 GENERAL SYMPOSIUM IN PUBLIC LAW (s 03.00) Synthesizing seminar for those who take this area as comprehensive field; also to satisfy requirements for research and general seminars under previous graduate degree programs.

Political Science and Public Administration

53.680 AMERICAN PUBLIC POLICY (s 03.00) Analysis of role of government in formulating and implementing policies related to education, socialization, individual and group conduct, redistribution of benefits and burdens; introduction to policy analysis.

53.681 POLICY ANALYSIS AND EVALUATION (s 03.00) Development of intellectual framework and methods for analysis and evaluation of policy and policy structures; generation and comparison of policy alternatives; models of policy making.

53.682 FOUNDATIONS OF POLICY ANALYSIS: METROPOLITAN AND NATIONAL (s 03.00) Distributional impacts, externalities, role of risk and uncertainty in policy analysis; criteria for choice, normative tools for analysis, use of information and social welfare criteria in making policy decisions.

53.683 DESIGN OF POLICY RESEARCH (s 03.00) Introduction to experimental, quasi-experimental and nonexperimental research designs; evaluation of alternative designs for policy research; use of data-collection, techniques, sources, survey research, aggregate data analysis, use regularly published U.S. Government economic, business, housing and population data.

53.684 PUBLIC AFFAIRS LABORATORY (s 03.00) Investigation of special topics to be arranged independently with designated faculty.

53.685 FEDERAL FISCAL POLICY (s 03.00) Significance and effect of federal budgetary policy in national economy; consideration of expenditure areas' effects on economic decision-making and actions of federal budget administration; identification of agencies involved in budgetary process.

53.686 INSTITUTE ON PUBLIC POLICY (s 03.00) Specialized module of instruction in which students meet with practitioners in specific public policy areas.

53.687 SCIENCE, TECHNOLOGY AND GOVERNMENT: INTERACTIONS AND ISSUES (s 03.00) Examination of interactions and issues of science, technology and government through historical, theoretical, interdisciplinary and case problem approaches.

53.688 SCIENCE, TECHNOLOGY, AND INTERNATIONAL AFFAIRS (s 03.00) Effects of science and technology on territorial state system, including changes in instruments of international conduct; study of scientific components of foreign policy formation.

53.689 STUDIES IN PUBLIC POLICY (s 03.00) Selected topics in public policy.

53.785 GENERAL SYMPOSIUM IN PUBLIC POLICY (s 03.00) Synthesizing seminar for those who take public policy as comprehensive field; also to satisfy requirements for research and general seminars under previous graduate degree programs.

MANAGEMENT AND PUBLIC ADMINISTRATION

Governmental Management

54.609 INSTITUTE ON ORGANIZATIONAL THEORY AND BEHAVIOR (s 01.00 through 03.00)

54.610 PUBLIC MANAGEMENT (s 03.00) Focuses upon the activities and tasks of managers in public sector agencies; examination of varieties of public agencies, their contexts, organizations and technologies, strategies available to managers to accomplish organizational tasks.

54.611 ORGANIZATION PLANNING AND CONTROL (s 03.00) Application of key concepts from systems analysis, management science, organizational dynamics and administrative automation to planning and control of public systems in selected manpower, transportation, public safety, natural resources, national security, international, and science agencies.

54.612 THE POLITICS OF ADMINISTRATION (s 03.00) Governmental institutions, powers and relationships; external environment of management; relationships of national, state and local governments to client groups, legislative bodies, other agencies, professional associations and groups.

54.613 PROCUREMENT AND CONTRACT MANAGEMENT (s 03.00) Applications of major concepts and approaches in procurement and contract management; focus on application procedures, enforcement techniques, principles of negotiation, legal specifications, review and renewal processes, purchasing and material management.

54.614 PUBLIC PERSONNEL (s 03.00) Managerial responsibility in recruiting and developing governmental personnel; emphasis on labor-management agreements; design and classification of the position structure; appraisal of employee performance; grievance and appeal systems; motivation and morale of work force.

54.615 MANPOWER UTILIZATION (s 03.00) Problems of training, motivation and assessment of government manpower; emphasis upon application of current research on manpower utilization.

54.616 LABOR RELATIONS IN PUBLIC EMPLOYMENT (s 03.00) Changing patterns of relationships among public employers, employees and organizations of public employees; methods and implications of collective bargaining in public sector.

54.617 ADMINISTRATIVE LAW (s 03.00) Legal context of public administration; emphasis on empowerment process, exercise of administrative powers, and judicial review of administrative actions.

54.618 PUBLIC MANAGERIAL ECONOMICS (s 03.00) Introduction to analytical tools of economic analysis; application of economic theory to managerial decision-making in public sector.

54.619 ADMINISTRATION OF INTERNATIONAL PROGRAMS (s 03.00) Comparative analysis of national and international processes and problems focusing on administration of foreign policy of United States and selected U.N. programs.

54.622 DEVELOPMENT OF ORGANIZATIONAL THOUGHT (s 03.00) General historical origins and the

normative assumptions of key organizational theorists; relationship of organizational thought to general stream of political thought.

54.623 ORGANIZATION AND MANAGEMENT THEORY (s 03.00) Political, sociological, economic, and social psychological theories of complex organizational structures; emphasis on role of value systems and ethics in administrative process.

54.629 STUDIES IN GOVERNMENTAL MANAGEMENT (s 03.00) Selected topics in governmental management.

54.715 GENERAL SYMPOSIUM IN GOVERNMENTAL MANAGEMENT (s 03.00) Review of scholarly literature on management from the classics on science and politics of administration to current emphasis on programs; synthesizing seminar for students taking comprehensive examinations in this field.

Financial Management

54.630 PUBLIC FINANCIAL MANAGEMENT (s 03.00) Problems, concepts, and issues in public financial management; emphasis upon capital budgeting, financial statement analysis, credit financing, capital management, financial planning and forecasting, capital improvement and programming, budget process.

54.632 GOVERNMENTAL BUDGETING (s 03.00) Processes and instruments of planning, programming, and budgeting in public managerial establishment.

54.633 INTERGOVERNMENTAL FISCAL POLICY (s 03.00) Interrelationships of federal, state, and local governmental budgetary and financial policy and administration; functions of budgetary and financial administration from perspective of state and local government administrators.

54.639 STUDIES IN FINANCIAL MANAGEMENT (s 03.00) Selected topics in financial management. See also course listings under School of Business Administration.

Management Science

54.640 SYSTEMS ANALYSIS/OPERATIONS RESEARCH IN PUBLIC ADMINISTRATION (s 03.00) Introduction to systems analysis/operations research; application of scientific method to decision-making problems in public administration at international, national, and local levels.

54.641 PUBLIC MANAGEMENT OF SCIENCE (s 03.00) Major organizational issues in federal government's support and use of science and technology; problems of organizational competition, planning, and implications of governmental support for research.

54.642 COMPUTER APPLICATIONS FOR PUBLIC MANAGERS (s 03.00) Examination of use and impact of computer in public administration; introduction to principle components in computer systems; applications to managerial problem solving; social questions arising from use of computer.

54.645 SKILLS FOR MANAGEMENT (s 02.00) Acquisition of specific management skills such as written and oral communication, design of management by objective programs; computer utilization, etc. Each module consists of 17 hours of instruction over an 8 week period.

54.649 STUDIES IN MANAGEMENT SCIENCE (s 03.00) Selected topics in management science.

Organizational Development and Change

54.650 LEADERSHIP FOR PUBLIC MANAGEMENT (s 03.00) Analysis of individual student's potential or actual leadership style and capacity in public agencies through group experiences, relevant theory, and individual learning instruments.

54.651 GROUPS AND ORGANIZATIONS (s 03.00) Groups phenomena; decision-making, norm setting, membership, internal differentiation, leadership; intensive group processes; observation of real-life groups in action; practical application of learning experience to such groups are governing boards, committees in government institutions, etc.

54.652 INSTITUTIONAL CHANGE AND DEVELOPMENT (s 03.00) Strategies and techniques derived from behavioral science knowledge and utilized to improve effectiveness of individuals, teams, and organizations are revised and practiced. Includes data collection and feedback, group process observation, team building, conflict management and structural interventions. Includes survey of current applications, trends, and professional issues.

54.653 HUMAN PROBLEMS IN ORGANIZATIONS (s 03.00) Examination of selected theories dealing with relationship of individuals to organizations; focus on issues and problems faced by individual

class members in their own organization; class members should be employed full- or part-time in an organization.

54.654 DEVELOPING INTERVENTION STRATEGIES (s 03.00) Framework for relating concepts from organization theory and change techniques to systematic strategies for intervention. *Prerequisite:* 54.652 or equivalent.

54.655 ORGANIZATIONAL DIAGNOSIS (s 03.00) Design and conduct of diagnostic studies of work teams through use of behavioral science tools; review of organizational theories, data collection, feedback techniques, and methods for evaluation of interventions into organizational systems. *Prerequisite:* 54.652 or equivalent.

54.656 PERSONALITY THEORY AND ORGANIZATIONS (s03.00) Social psychology of the organization; motivation, leadership, and revitalization of organizational personnel; theories of personal motivation.

54.657 INSTITUTE ON ORGANIZATIONAL DEVELOPMENT AND CHANGE (s 01.00 through 03.00) Specialized program emphasizing experiential learning and discussion of underlying theories.

54.659 STUDIES IN ORGANIZATIONAL DEVELOPMENT AND CHANGE (s 03.00) Selected topics in organizational development and change.

54.755 GENERAL SYMPOSIUM IN ORGANIZATIONAL DEVELOPMENT AND CHANGE (s 03.00) Review of scholarly literature in organizational theory and behavior, including relevant literature in sociology and psychology; its contribution to development of the discipline; synthesizing seminar for students taking comprehensive examination in this field.

Research for Management

54.660 METHODS OF PROBLEM SOLVING (s 03.00) Introduction to statistical analysis; uses of alternative methodologies in problem solving; experience in use of research for the development of policy recommendations.

54.669 STUDIES IN RESEARCH FOR MANAGEMENT (s 03.00) Selected topics in research for management.

Urban Affairs

54.680 URBAN POLITICS (s 03.00) Introduction to study of urban affairs; analysis of selected problems related to population change, urban bureaucratic responsiveness; analysis of alternative governmental forms; metropolitan decision-making; intergovernmental relations.

54.681 METROPOLITAN ANALYSIS (s 03.00) Interdisciplinary course in development of new approaches and methods for analyzing policy decisions in metropolitan areas; focus on theoretical and empirical applications of social science to urban public policy.

54.682 MANAGING URBAN GROWTH (s 03.00) Examination of causal factors associated with urban growth; analysis and evaluation of alternative mechanisms for managing growth in urban and metropolitan areas; specific attention to legal, economic and political aspects of the problem.

54.683 URBAN PUBLIC FINANCE (s 03.00) Analysis of central problems and issues in financing public services; evaluation of alternative taxing mechanisms, credit practices, collection and assessment methods. (See also course listings under the School of Business Administration.)

54.684 URBAN PLANNING (s 03.00) Emphases include comprehensive land planning, social and economic planning, transportation, renewal, rehabilitation and housing; focus on political and intergovernmental context of planning and development functions and decisions.

54.685 URBAN JUSTICE (s 03.00) Intensive study of urban court systems, their actors and processes; problems of law enforcement and correctional system; impact of courts on resolution of urban problems.

54.689 STUDIES IN URBAN AFFAIRS (s 03.00) Selected topics in urban affairs.

54.780 SEMINAR IN URBAN AFFAIRS (s 03.00) Special subject offering.

SPECIAL COURSES AND INTERNSHIPS

52.691 GRADUATE INTERNSHIPS IN NATIONAL, STATE, AND LOCAL GOVERNMENT, OR IN A RESEARCH ORGANIZATION (s 03.00) Arrangements for scheduled work assignments in participation, observa-

tion, and research, and seminar integration under cooperative supervision of government official or research director and member of school faculty.

52.690 INDEPENDENT STUDY PROJECT IN GOVERNMENT (s 01.00 through 06.00)*

52.698 GRADUATE INTERNSHIP SEMINAR (s 03.00) Application of organizational theory to analysis of behavioral dynamics in host agencies.

52.712 PRACTICUM IN TEACHING AND RESEARCH (s 01.00 through 03.00) Arrangements for apprenticeships in research or teaching with individual faculty members made by Associate Dean for Graduate Programs. Through this practicum students become involved with the ongoing work of school in variety of assignments. Year long program, with grading at the end of year on a pass/fail basis. Students admitted with professional experience may apply to have this requirement waived. Highly qualified candidates for the master's degree may also apply for admission to the practicum. (Normally taken on a three semester hour per year basis.)

52.797 MASTERS THESIS SEMINAR IN POLITICS AND GOVERNMENT OR PUBLIC ADMINISTRATION (s 06.00)

52.799 DOCTORAL DISSERTATION SEMINAR IN POLITICS AND GOVERNMENT OR PUBLIC ADMINISTRATION (s 06.00 through 12.00)

*See description under "General Curriculum Information" in this publication.

School of International Service

DEAN Gregory B. Wolfe

Associate Dean W. C. Cromwell

Graduate Academic Counselor N. B. Eddy

Undergraduate Academic Counselor E. W. Myers

FULL-TIME FACULTY

Professor T. A. Coloumbis, J. J. Finan, R. W. Gregg, G. L. Harris, C. H. Heimsath, W. S. Hunsberger, A. D. Mott, H. Mowlana, F. J. Piotrow, R. L. Powell, D. D. Randall, A. A. Said, A. R. Taylor, A. L. Vilakazi, L. W. Wadsworth (Grazier Memorial Professor of International Law), M. P. Walker, L. C. Wilson, T. Yoshiashi

Associate Professor G. M. Bonham, W. C. Cromwell, L. L. Lubrano, N. G. Onuf, B. B. Tyson, G. L. Wood

Assistant Professor S. H. Arnold, D. L. Clarke, L. D. Howell, A. Suhrke

Visiting Professor H. R. Cottam, H. W. Jacobson, A. H. Meyer, A. Reifman

Professor Emeritus M. E. Bradshaw (Univ. Emer.), W. Y. Elliott (Univ. Emer.), R. H. Gabriel (Univ. Emer.), E. S. Griffith (Univ. Emer.), M. D. Irish, K. P. Landon, M. F. Lindsey, P. B. Potter, H. M. Randall, D. V. Sandifer, S. L. Shapr (Univ. Emer.)

THE SCHOOL OF INTERNATIONAL SERVICE offers programs and concentrations in international relations, foreign area and cross-national studies, and policy analysis. Its fields of study include international law and organization, international communication, United States and comparative foreign policy, regional international systems, and comparative government and politics. The approach is at once disciplinary, multidisciplinary, and interdisciplinary. It draws upon the faculty resources of the entire University, including those in anthropology, economics, history, languages, and linguistics, philosophy and religion, and political science. Moreover, the school consciously seeks to integrate the several disciplines, giving a broad approach to the study of international affairs. In these endeavors, the large and varied faculty of The American University in international studies is significantly complemented by the faculty resources of the Consortium of Universities of the Washington Metropolitan Area.

Undergraduate Degree Programs

The undergraduate program of the school offers the student a broad foundation in the liberal arts, a flexible specialization in international studies, and an experimental curriculum. The School offers the Bachelor of Arts in International Studies, the Bachelor of Science in International Studies, and jointly with the Department of Language and Foreign Studies of the College of Arts and Sciences, a Bachelor of Arts in Language and Area Studies.

ADMISSION In addition to the standards and procedures pertaining to undergraduate admission at The American University, candidates for admission to the School of International Service must present evidence of excellent personal and academic qualifications. Eligibility for freshman admission consideration normally requires at least a B average in secondary school. Other factors considered are leadership qualities, character and personal interests. Approximately 100 students enter the freshman class. Students from other regionally accredited collegiate institutions and students in other majors at The American University who have completed the freshman year should maintain at least a cumulative B average in order to be eligible to apply for transfer to the School of International Service.

UNDERGRADUATE COUNSELING During the first semester, all freshmen and new transfer students may participate in a special lecture-seminar program designed to acquaint students with the faculty of the School of International Service as well as with the variety and scope of the field of international studies. After attending this program, each student may select one of the members of the SIS faculty to act as his or her permanent advisor, to help in planning an appropriate program of study. Counseling is also provided by the School's Office of Undergraduate Studies and by a selected group of undergraduates which supplement the faculty advisor system.

Bachelor of Arts

MAJOR IN INTERNATIONAL STUDIES

The Bachelor of Arts in International Studies acquaints students with three facets of international studies: international relations, foreign area and cross-national studies, and foreign policy analysis. Students may specialize in any two of these three general fields.

The International Relations specialization focuses on the political relationships among nation-states, including peace and war, diplomacy, international law, international organizations, and, at the option of the student, economic relationships and international trade and finance.

The Foreign Areas and Cross-National Studies (specialization focuses on a selected region such as Latin America, Africa, the Middle East, East Asia, Southeast Asia, South Asia, or Europe, or a country, such as the Soviet Union or China. Emphasis is on the region or country's history, political institutions, cultural traditions, economic problems, and international relations.

The Foreign Policy specialization focuses on the principal foreign policy strategies open to nation-states, stressing the relationships between domestic and foreign policy, the institutions and political processes that shape foreign policy, and the administration of foreign policy programs. A comparative perspective is encouraged, but primary emphasis is on United States foreign policy.

COURSE REQUIREMENTS The School of International Service holds that a student should have considerable discretion in putting together his or her program. As a result, the school's requirements are the very minimum necessary to accomplish five objectives:

- (1) The school seeks to develop a balanced perspective on the three major aspects of international studies identified above. Consequently, the school requires a minimum of one course in each of the three fields, with a student taking a minimum of three additional courses in two fields of specialization. (a) International relations: 33.201 World Politics. If this field is selected as one of the fields of specialization, three additional courses must be taken. (b) Foreign areas and cross-national studies: 33.161 Civilizations of Africa and the Middle East or 33.161 Civilizations of Asia or one of 33.241 through 33.248, introductory courses dealing with one of several foreign areas; or an appropriate history course. If this field is selected as one of the specialization fields, three additional courses must be taken, at least two of which must be in one of the following disciplines: economics, political science, anthropology, or history. (c) Policy analysis: 33.281 Policy Analysis or 33.285 Comparative Foreign Policy. If this field is selected for further specialization, three additional courses must be taken, at least two of which must be concerned with foreign policy analysis.
- (2) The school seeks to lay a foundation of understanding of the Western tradition of which America is a part and which colors American perceptions of the whole of international affairs. Consequently two courses are required: 33.151-152 Western Tradition I and II.
- (3) The school seeks to develop conceptual skills in political science and economics, the two social sciences most critical to systematic international studies. Consequently, 33.101 Political Concepts and 19.100 Introduction to Economics are required.
- (4) The school seeks to improve skills in oral and written communication. This policy accords with the University requirement of 23.100-.101 Composition and Reading I and II. The school provides an option whereby this requirement may be met in two courses taught by the School of International

Service faculty: 75.101-.102 Selected Human Problems I and II: Contemporary Issues in World Affairs.

(5) The school seeks to develop proficiency in one modern language or, alternatively, in statistics and quantitative modes of analysis. Consequently, students are required to demonstrate competence in either one or the other. Both are recommended. The foreign language requirement may be satisfied either by examination or waiver (administered by the Department of Language and Foreign Studies in the College of Arts and Sciences), or by course work through the intermediate level. The statistics and quantitative analysis option may be satisfied either by examination (administered by the School of International Service) or by successful completion of 33.307 Quantitative Approaches to International Politics or 19.310 Introduction to Econometrics, plus an additional research paper or "methods" course approved by the School of International Service.

INTENSIVE SEMESTER REQUIREMENT Each undergraduate major in the school as of Fall 1974, must complete one of the following special programs during the junior or senior year. Distribution requirements for either B.A. in International Studies or the B.A. in Language and Area Studies may be satisfied by the successful completion of one such program. A major must: (1) successfully complete a semester overseas in an accredited program of study; or (2) successfully complete one of the special semesters regularly offered by the school (Foreign Policy Semester, International Development Semester); or (3) successfully complete a special semester, not necessarily at The American University, which meets the following criteria: (a) the student must submit to the SIS Office of Undergraduate Studies for approval a proposal which identifies a focus of inquiry and a minimum of three courses, or their equivalent, which are germane to it and which he or she proposes to offer in the special semester; (b) the student must identify, in consultation with the instructors of the three related courses (one of whom will serve as principal advisor for the semester), a topic on which he or she will prepare one major research paper in satisfaction of the term paper requirement of all three courses.

RELATIONSHIP BETWEEN DEGREE AND CAREER The school provides a well-balanced liberal arts education with an international and cross-cultural flavor, believing that such a program is an excellent preparation for enlightened citizenship, further and more specialized graduate study, and careers of international service with either public or private agencies. Certain careers require particular skills, and the school works conscientiously with each student to identify his or her career interests and to prescribe course packages which will enhance entry into those careers.

For example, many majors take intensive work in economics, either as part of their major or in addition to it, to prepare for careers with the United States government, international agencies, and internationally active businesses. The latter career also attracts some of our students to courses in the School of Business Administration. Others take work in public administration and management in the School of Government and Public Administration and in the Center for Technology and Administration, both within the College of Public Affairs, in preparation for careers in the public service administering international and overseas programs. Journalism careers call for some course work in the Department of Communication. Some international careers require high levels of language competence, and the Department of Languages and Foreign Studies provides programs of instruction in many languages, while the Consortium of Universities offers instruction in many more.

MAJOR IN LANGUAGE AND AREA STUDIES

This degree is administered jointly by the School of International Service of the College of Public Affairs and the Department of Language and Foreign Studies of the College of Arts and Sciences. It is the only undergraduate degree offered by The American University which both permits an area specialization *and* requires intensive training in the language of the area.

PROGRAMS OF STUDY The student may choose one of three different programs of study, depending on his language and area interest: (1) Russia/USSR; (2) Spanish/Latin America; (3) French or German/Western Europe.

COURSE REQUIREMENTS (1) Elementary and intermediate language of the area, or the equivalent. (2) Conversation and Composition I and II (of an appropriate language) or approved substitutes. (3) Civilization I and II (in the appropriate language). (4) Eight additional courses specific to the area of specialization, to be selected by the student in consultation with his advisor from among those offered in anthropology, economics, history, international relations, political science, literature, and interdisciplinary courses and colloquia. The eight must be distributed among two or more of these fields or disciplines, and may not include required prerequisites which are not specific to the area. (5) A total of four courses must be taken in the School of International Service,

of which a minimum of two must be in the area of specialization (they may be among the eight courses required in the previous paragraph).

Graduate Degree Programs

The graduate program of the School embraces Master of Arts degrees in International Studies and International Communication, the latter in conjunction with the Department of Communication in the College of Arts and Sciences, and a Doctor of Philosophy in International Studies. The School of International Service offers graduate degrees which encourage a multidisciplinary approach to international studies. It is the aim of the School to provide sound preparation in the substantive, theoretical and methodological aspects of international studies, with the understanding that such training is relevant to academic careers and to professional careers in both public and private sectors.

ADMISSION *Master's Degrees.* Admission to graduate study in the School of International Service is limited to students who have earned at least a B average in a relevant undergraduate major as a part of a bachelor's degree earned at an accredited institution. A relevant major is defined as a minimum of twenty-four semester hours in subjects seemed appropriate to the degree program selected. Successful applicants who lack twenty-four semester hours of relevant courses will be expected to complete additional work in the areas of background deficiencies, which are normally determined at the time of admission. All applicants for the Master's degree programs (except foreign students) are required to take the Aptitude Section of the Graduate Record Examination. All applicants must supply at least two letters of reference from qualified persons capable of evaluating both their undergraduate performance and their suitability for undertaking graduate study in the chosen field.

Applicants for Master's degree programs (full or part-time) will be considered for admission for any Fall, Spring, or Summer term. However, Fall admission is preferred and is to the student's advantage inasmuch as course scheduling is programmed to the needs of students beginning in the Fall semester.

Ph.D. in International Studies. Applicants for the Ph.D. degree must possess a master's degree, or its equivalent, earned in a relevant field from an accredited institution with a cumulative average in all graduate work of substantially higher than B. Applicants (except foreign students) are required to take the Aptitude Section of the Graduate Record Examination. Applicants must supply at least two letters of reference from qualified persons capable of evaluating both their graduate performance and their suitability for undertaking doctoral level study.

Applicants for the Ph.D. degree will be considered and admitted only for the Fall semester of each academic year. March 1 is the deadline for receipt of applications and supporting materials. Though applicants for part-time doctoral study are eligible for admission, such students are strongly encouraged to devote at least one academic year of full-time study during the course of their program.

GRADUATE COUNSELING Each graduate student is assigned a faculty advisor. The faculty advisor is responsible for working closely with the student in planning his degree program and assisting him in deriving maximum advantage from the graduate study opportunities afforded by The American University and the Washington Consortium of Universities. Moreover, students in the Ph.D. program, in consultation with the dean, are expected to develop a doctoral committee in their first semester of doctoral work. This committee will consist of two faculty representatives from the student's major field (one of whom shall be the advisor of record) and one from each minor field. During his first semester the student should develop with his advisor at the M.A. level, and with his advisor and committee at the Ph.D. level, a general program plan, and consult at least once a semester thereafter regarding course selection, the development of appropriate research skills, and the comprehensive examination and research requirements appropriate to the degree. The school's Office of Graduate Studies should be consulted regarding academic or administrative problems pertaining to the student's degree program.

ADVANCEMENT TO CANDIDACY Advancement to candidacy is a formal evaluation and planning stage which takes place after partial program completion and before the student is approved to undertake his comprehensive examinations. It represents an opportunity for the student to specify formally his degree program aims and provides an occasion for the school to evaluate the student's graduate record and degree objectives in light of his acquired proficiency, interests, and appropriate program requirements. Advancement to candidacy is a condition for further graduate study.

Master's degree students must apply for advancement to candidacy when they have completed between twelve and eighteen hours of graduate work at The American University (with an average of B or better), have completed all deficiencies specified at the time of admission, and have made up all incomplete course work. If, at the end of eighteen hours, or at any time thereafter, the student's average is less than B, he is subject to dismissal from the University.

When eligible for advancement to candidacy, the student designates his comprehensive examination fields and tool of research in consultation with his faculty advisor. He then files the appropriate form, endorsed by his faculty advisor, with the school's Office of Graduate Studies. *Students who plan to apply for comprehensive examinations must apply for advancement to candidacy at least one month prior to the announced deadline.*

Doctoral degree students must apply for advancement to candidacy no later than the end of the semester in which eighteen hours of graduate work will have been completed in residence beyond the M.A. degree and subsequent to admission to a doctoral program. Any incomplete work and course deficiencies specified at the time of admission must be completed by this time. An average of substantially better than B in all doctoral level course work is required for advancement to candidacy. A student who is ineligible for advancement to candidacy at this time will not be permitted to continue further in his doctoral program.

In addition to the foregoing, the following steps and requirements must be accomplished in order to qualify for advancement to candidacy for the doctorate.

(1) The student must submit an application for advancement to candidacy prepared in consultation with and endorsed by his faculty advisor and doctoral committee which outlines in detail his doctoral program of study. The application must include a specification of fields for comprehensive examination and the proposed tool of research. In addition, the student must include a carefully reasoned statement, approved by his advisor, which elaborates his major focus of specialization. This may be a sub-field of a broader area of interest or discipline or may cut across and tie together two or more disciplines. This statement should relate directly to the student's course work program and one or more of his comprehensive examination fields.

(2) The application for advancement to candidacy is to include a description, in general terms, of the student's intended dissertation topic. The proposed tool of research must be justified in terms of its appropriateness to the dissertation topic or to other aspects of the student's research interests which have constituted an integral part of his program.

(3) Each doctoral student must pass an oral qualifying examination in order to be eligible for advancement to candidacy. The purpose of the qualifying examination is to determine the prospective candidate's developing competence and qualifications in the general field of international studies and particularly in his area(s) of specialized interest and chosen fields for comprehensive examinations. Though not intended to test fully developed doctoral level field proficiency, the examination will seek to determine the student's qualities of mind, subject matter knowledge, and growth potential for the purpose of evaluating his suitability for continued study toward the doctorate. The qualifying examination will be conducted by the student's doctoral committee plus the dean or his designated representative. If a student fails to pass the qualifying examination he may petition for a retake which, if granted, must be completed within nine months.

A doctoral student's eligibility for advancement to candidacy will be determined by the foregoing considerations and will take into account the advice and recommendations of the faculty with whom the student has worked.

TRANSFER OF CREDITS Requests for transfer of graduate credits (minimum grade of B) from other accredited institutions are considered at the time of advancement to candidacy. In all cases the acceptability of transfer credit requests will be determined by the relevance of the work to the student's graduate degree program. Normally, an M.A. program or other graduate work completed more than eight years prior to the semester of admission will not be considered for transfer toward a graduate degree in the School of International Service.

Subject to the above stipulations, an M.A. student may request transfer of up to six semester hours toward his degree. A doctoral student may transfer up to thirty hours, leaving a minimum of thirty hours of required doctoral residency plus twelve hours credit allowable for the dissertation. In the case of doctoral students, previously earned M.A. credits will be accepted toward the doctorate in proportion to their relevance to the student's overall graduate program as determined by the selection of comprehensive fields and dissertation subject.

COMPREHENSIVE EXAMINATIONS Fields for comprehensive examination are formally designated by the student when he applies for advancement to candidacy and are selected in accordance

with the field options applicable to the student's degree program. However, the student is encouraged to select his fields as early in his program as possible so as to facilitate proper course planning in consultation with his faculty advisor and doctoral committee.

Eligibility A student must be advanced to candidacy in order to be eligible to take the comprehensive examinations. All courses preparatory for the examination(s) to be taken, exclusive of the appropriate research requirement, must be completed or in progress during the semester in which the examination(s) are to be taken.

Scheduling Comprehensive examinations administered by the School of International Service are offered during the Fall and Spring semesters and during the summer session. Applications for comprehensive examinations must be submitted to the school's Office of Graduate Studies prior to the appropriate deadline. Application deadlines and the beginning dates of the examination period are as follows: the application deadline for Fall comprehensives will be the last class day of September and the examination period will begin the first Monday after Thanksgiving; the application deadline for Spring comprehensives will be the last class day of January and the examination period will begin the third Monday in March; the application deadline for summer comprehensives will be the first of May and the examination period will begin the fourth Monday in July.

M.A. students who have not been advanced to candidacy must apply for advancement at least one month prior to the appropriate deadline even if the minimum course work hours are still in progress. Doctoral students must apply for advancement to candidacy at least six weeks prior to this deadline.

Completion Requirements Written comprehensive examinations at both M.A. and Ph.D. levels are of four and one-half hours duration. Oral examinations are of one to two hours duration. In the case of Ph.D. candidates, comprehensive examinations must be taken or commenced within one calendar year following completion of all course residence requirements for the degree. Examinations *must* be taken either within a single semester or in two *consecutive* semesters.

Retakes An M.A. Student may attempt the comprehensive examinations a cumulative total of four times during which he must pass two exams. However, if the examination is a two-field integrated oral comprehensive, the student may attempt the examination a total of three times. A Ph.D. student may attempt the comprehensive examinations a cumulative total of six times during which he must pass three exams (this does not include the oral qualifying exam).

In Absentia Examinations Students are discouraged from taking comprehensive examinations *in absentia*. Such applications will be approved only in exceptional circumstances.

DOCTORAL DISSERTATION The doctoral dissertation is accomplished under registration for twelve semester hours of doctoral dissertation supervision. The requirement is fulfilled by the completion of an acceptable dissertation and by a successful defense of the dissertation in a final oral examination. The basic dissertation standard is that of a high quality of original research in a subject which is directly related to the student's doctoral program emphasis.

Though the student is asked to present a general statement of his dissertation subject plans when he applies for advancement to candidacy, the formal proposal is presented for acceptance and appointment of a faculty dissertation committee only after all comprehensive examinations have been successfully completed. The tool of research must be certified prior to formal topic acceptance. Registration for dissertation supervision credits should be accomplished only after all comprehensive examinations have been completed.

After the candidate has completed his comprehensive examinations, he and his dissertation committee chairman (or faculty advisor if a committee has not been appointed) are required to file a dissertation progress report with the school's Office of Graduate Studies every semester. At the time these reports are submitted, the candidate may request a meeting of the dissertation committee to discuss his progress. Dissertation committees are obliged to meet with candidates upon such request. Failure on the part of the candidate to submit such a progress report for two consecutive semesters constitutes termination of the student's matriculation.

QUALITY REQUIREMENT *Master's students* are expected to maintain at least a "B" average in all graduate course work taken as a part of the degree program. If a student has not maintained a "B" average by the time of normal eligibility for advancement to candidacy, or if his average falls below "B" at any time thereafter, he shall be subject to dismissal from the University.

Doctoral students are expected to maintain a substantially better than "B" average in all graduate work taken at the doctoral level. Normally this will be interpreted as a minimum 3.25 average on a 4.00 scale. A doctoral student who has not attained the minimum average by the time of normal

eligibility for advancement to candidacy will not be permitted to continue further in his doctoral program. Should his average fall below the minimum requirement at any time after advancement to candidacy, he shall be subject to dismissal from the University.

In the case of both Master's and Doctoral students, the minimum quality averages described above shall constitute minimum quality requirements for graduation.

STATUTE OF LIMITATIONS AND LEAVES OF ABSENCE In cases where prerequisites or background deficiencies are assigned, the Statute of Limitations will be automatically extended in accordance with the semester time required to complete the additional requirements. Upon written advance petition to the Dean, a leave of absence may be granted for a maximum of three years for reasons deemed appropriate by the Dean. In such cases, the student will be allowed to resume his graduate program under the degree requirements existing at the time of his initial admission, taking into account possible adjustments which may be necessitated by curriculum changes in the school. However, a leave of absence will not be allowed to affect the requirement for doctoral students that comprehensive examinations must be taken within one year of completion of residence requirements.

REINSTATEMENT Reinstatement to a degree program may be granted once for a maximum period of three years in light of the requirements of the particular degree in effect at the time of reinstatement, except as noted above under formal leave of absence provisions. Students who are reinstated following an authorized leave of absence must complete all program requirements within the normal time period as extended by the leave of absence.

COMPREHENSIVE EXAMINATION FIELDS The School of International Service offers the following fields for comprehensive examinations at the Master's and Doctoral levels.

33.001 *International Relations* This field consists of international relations theory and the systematic study of international politics.

33.021 *International Law and Organization* This field embraces institutionalized modes of interstate and transnational relations at both general and regional levels.

33.051 *International Communication* This field examines communications in interstate relations with emphasis upon the behavioral science perspective. It is offered cooperatively by the School of International Service and the Department of Communication.

33.061 *Regional International Systems* This field consists of international politics of selected regions of the world and the foreign policies of principal states within those regions. The major designated areas are: (a) Latin America; (b) Western Europe; (c) Soviet Union; (d) Middle East and North Africa; (e) Africa; (f) South Asia; (g) Southeast Asia; (h) East Asia.

33.081 *U.S. and Comparative Foreign Policy* This field is concerned with the foreign policy formulation process, the interrelationship of domestic and foreign policy, and the substantive issues of foreign policy in both an American and a comparative context.

53.063 *Comparative Government and Politics* This field encompasses the cross-national study of political institutions and political processes, especially those related to development and political behavior. It is offered cooperatively by the School of International Service and the School of Government and Public Administration.

In addition to these six fields, all offered by the School of International Service alone or jointly with another teaching unit at The American University, a number of additional fields of interest to students of international relations, foreign areas and cross-national studies, and policy analysis are offered at The American University and may be selected by M.A. and Ph.D. students in the School of International Service, subject to the specific requirements of those degrees. See requirements for specific degrees for listings of other fields which may be selected from among such disciplines as economics, political science, public administration, anthropology, history, sociology, psychology, and literature.

The School of International Service offers a flexible Master of Arts degree for all students whose interests lie in three broad areas of international studies: international relations, foreign areas and cross-national studies, and policy analysis. Students may specialize in any one of these areas or, alternatively, take a more general program embracing elements of two or more of them.

International Relations focuses on the political and economic relationships among nation-states, including peace and war, diplomacy, international law and organization, international communication, and international trade and finance. It also includes international relations theory and those techniques of research and analysis which are applicable in this field.

Foreign Areas and Cross-National Studies is designed for those students who wish to concentrate on some foreign culture area. It enables a student to select a region, such as Latin America, Africa, the Middle East, East Asia, Southeast Asia, South Asia, or Europe, or even a major country such as the Soviet Union, China, or France, to name but a few, and study its history, political institutions, cultural traditions, literature, and economic problems, as well as the international relations of that region and its place in world affairs.

Policy Analysis will be attractive to those students who are interested in public policy issues and the processes whereby public policies are made and administered. It is concerned with the principal foreign policy strategies open to nation-states, with the relationships between domestic and foreign policy, with the institutions and political processes that give shape to public policies, and with the administration of public programs. It encourages a comparative perspective, but permits an emphasis upon United States policy.

MINIMUM COURSE REQUIREMENTS Thirty hours of graduate credit is required for the Master of Arts in International Studies. Of these, six hours are devoted to the thesis (or, alternatively, two substantial research papers). The remaining twenty-four hours will be distributed in such a way as to prepare a student for the comprehensive examination(s). The student's advisor and the school's Office of Graduate Studies will assist in developing an appropriate course package. However, a minimum of twelve hours are to be taken within the School of International Service.

COMPREHENSIVE EXAMINATION REQUIREMENTS

General Program Each student is given a choice in the composition of his or her program and that choice is reflected in the comprehensive examinations. If the student chooses a general program, he or she may select any two fields from among those listed below, one of which must be an SIS field. It is expected that the student will take a minimum of three courses in each field (some of which are prescribed for that field), and he or she will then be examined in each field in either written or oral form (the student may determine the form of the examination) by a faculty committee from that field.

Specialized Program If the student opts for a program of specialization, he or she selects one of the three broad areas of specialization. It is expected that the student will take eight courses from that area of specialization, so selected as to include at least three courses from each of two fields within the area of specialization, one of which must be an SIS field. (If it can be demonstrated that they are germane to the student's specialization, the additional two courses may be taken from other fields outside the area of specialization.) The student will then be examined orally by a committee consisting of representatives from each field represented in the student's program; the examination will be integrative in character.

Comprehensive Examination Specialization Fields (1) For *international relations* specialization: International Relations (SIS), International Law (SIS), International Communication (SIS and Communication Dept.), U.S. and Comparative Foreign Policy (SIS), Regional International Systems (SIS), International Economic Policy (Economics Dept.), International Business (SBA). (2) For *foreign areas and cross-national studies* specialization: Regional International Systems (SIS), Diplomatic History (History Dept.), History (History Dept.), Cultural Area Analysis (Anthropology Dept.), Comparative Government and Politics (SGPA), Comparative Economic Systems and Soviet-Type Economies (Economics Dept.), Economic Development Policy (Economics Dept.), History of Religion (Philosophy and Religion Dept.), Literature (Language and Foreign Studies Dept.). (3) For *foreign policy analysis* specialization: U.S. and Comparative Foreign Policy (SIS), Comparative Government and Politics (SGPA), Politics (SGPA), Policy Analysis (SPGA), Public Administration (SGPA), Economic Development Policy (Economics Dept.)

Note: Certain other fields such as World Human Needs, may be substituted on petition in the general program. However, if a program of specialization is selected, field substitution is not permitted; outside courses may be allowed if they meet the test of germaneness described above.

RESEARCH SKILL REQUIREMENTS Candidates for this degree must pass a tool of research examination in one modern foreign language, or in statistics, or in another approved quantitative tool. In the case of a modern foreign language, the proficiency required for European languages is "3-level", translation only, and for other languages "2-level", translation only, according to the standards of the Foreign Service Institute of the Department of State. Examinations are administered by the Department of Language and Foreign Studies.

The optional research tool requirement in statistics may be satisfied by examination. Appropriate preparatory course work, if needed, consists of 53.610 Introduction to Quantitative Methods. For information about certification through examination, see the school's Office of Graduate Studies.

Other quantitative tools appropriate to the student's graduate program (e.g., econometrics, computer science) may be accepted and certified according to the standards of the department offering the tool.

RESEARCH REQUIREMENTS A thesis or two substantial research papers are required, one in each field, to be prepared in conjunction with an advanced course or research seminar in the field, or as an independent research project.

RELATIONSHIP BETWEEN DEGREE AND CAREER This degree is intended to prepare students for internationally oriented careers in the public or private sector; to improve skills or knowledge of individuals already embarked upon such careers; to prepare students for advanced graduate work at the doctoral level; and simply to continue at a more advanced level a broad liberal arts education. Certain careers require certain skills and certain kinds of knowledge, and that not every possible combination of courses and fields within the program is equally important for a given career. The School works conscientiously with each student to identify his or her career interests *and* to prescribe a program which will enhance entry into that career.

For example, a person who wants an academic career and contemplates doctoral level work following the M.A. degree would almost certainly take work in International Relations Theory and otherwise lay a foundation in research methods. On the other hand, a person who seeks a foreign service career may benefit most from a program that includes some economics or some public administration and management. Persons who desire a career that calls for a high degree of specialization in a foreign area should strive to become truly proficient in a language of that area, going beyond the requirements of this degree.

MAJOR IN INTERNATIONAL COMMUNICATION

The Master of Arts in International Communication is designed to provide a broad basis for achievement in the arts and sciences of international communication and to prepare the candidate to make specialized academic and professional contributions to the field. The program, administered jointly by the School of International Service and the Department of Communication of the College of Arts and Sciences, draws upon the relevant research and thinking of the social and behavioral sciences, including political science, economics, social psychology and cultural anthropology. In addition to the general standards of admission applicable to master's level study, the student applying for admission to this program must include a strong major or minor in social and behavioral sciences or communication in his academic background. For further information, write to Director of Program in International Communication, School of International Service, The American University, Washington, D.C. 20016.

MINIMUM COURSE REQUIREMENTS Thirty hours of graduate credit is required for the Master of Arts in International Communication. Of these, approved graduate work for this degree includes the following: (1) Six semester hours in methodology of research selected from the following: 17.760 Methodology of Communication Research, 33.611 The Conduct of Political Inquiry and Research, or other approved social science research methods courses. (2) Nine semester hours in international communication, at least three of which must be in 17.531 International Communication Systems. (3) Nine semester hours in one of the following social science and related areas: International Studies (relating to any one of the comprehensive examination fields offered by the School of International Service), Comparative Government and Politics, Economic Development, and Cultural Area Analysis. Social Psychology and General Communication Theory may be taken as related areas if comprehensive examinations are offered in these fields.

COMPREHENSIVE EXAMINATION REQUIREMENTS Two comprehensive examinations are required in the fields of international communication and a related area; these fields may be chosen and approved in consultation with a faculty advisor and certified by the Dean of the School of International Service or program director. The international communication examination must be written.

RESEARCH SKILL REQUIREMENTS All candidates for the Master of Arts in International Communication must pass a tool of research examination in a modern foreign language, translation only, at a "3-level" of proficiency according to the standards of the Foreign Service Institute of the Department of State. Examinations are administered by the Department of Language and Foreign Studies.

RESEARCH REQUIREMENTS A thesis or two substantial research projects prepared in conjunction with an advanced course or research seminar in the field, at least one of which must be completed in the Department of Communication.

Master of Public Administration

MAJOR IN INTERNATIONAL AFFAIRS

The School of Government and Public Administration, in cooperation with the School of International Service, offers a Master of Public Administration in International Affairs. This degree is designed for students who are contemplating or who are pursuing careers in the administration or management of international programs. Requirements for this degree are given in the School of Government and Public Administration section of this publication.

Doctor of Philosophy

MAJOR IN INTERNATIONAL STUDIES

The Doctor of Philosophy in International Studies is designed primarily to prepare students for academic careers as teachers and research scholars, although an increasing number of students planning professional careers in the public or private sectors, both in the United States and abroad, are completing doctoral programs in this field.

MINIMUM COURSE REQUIREMENTS A minimum of seventy-two hours of approved graduate credit is required for the Doctor of Philosophy degree, of which a total of twelve hours is to be in Doctoral Dissertation Supervision. Conduct of Political Inquiry and Research (33.611) is required.

COMPREHENSIVE EXAMINATION REQUIREMENTS Students in the Doctor of Philosophy degree program are required to offer one major and two minor fields. The major field and one of the minor fields must be selected from among the six core fields listed under (1) below, including international relations as either a major or a minor field. The second minor field may be another core field or may be selected from among the elective fields noted under (2) below.

(1) **Core Fields** International Relations (SIS), International Law and Organization (SIS), International Communication (SIS and Communication Dept.), U.S. and Comparative Foreign Policy (SIS), Regional International Systems (SIS), Comparative Government and Politics (SIS and SGPA).

(2) **Elective Fields** Any existing field in the College of Public Affairs, or in anthropology, business, economics, history, psychology, or sociology, as approved by the student's faculty advisor and the Dean of the School of International Service. In such case, the student will be expected to demonstrate the germaneness of the proposed field to his or her total program of study.

In addition, the student may propose a field not already existing (e.g., Quantitative Methods) according to the following provisions: The student must present a statement including the scope, content, and academic justification for the field along with proposed course work. The statement requires the endorsement of at least three members of The American University faculty representing the proposed field. A comprehensive examination will be required in this field, prepared by at least the above three faculty members. Approval of the field will be subject to the concurrence of the student's advisor and the Dean of the School of International Service.

Generally, each field will be serviced by a sequence of two core courses which will be systematic in character and will presume substantial undergraduate training on the student's part.

A *major field* is generally defined as the core course sequence, at least three other courses germane to the field as determined in consultation with the student's advisor, and a colloquium. An oral comprehensive examination will be taken in the major field with the candidate's advisor present.

A *minor field* is generally defined as the core course sequence plus at least two courses germane to the field as determined in consultation with the student's advisor. Written examinations will be taken in both minor fields.

The School of International Service strongly recommends that fields be selected in such a way that the degree of Doctor of Philosophy in International Studies is both multidisciplinary and broadly based in a single discipline, political science. Inasmuch as many recipients of the Ph.D. plan teaching and research careers in colleges and universities, and inasmuch as all are presumed qualified to pursue such careers, it is important that degree candidates develop versatile capabilities in some one academic discipline. Experience has shown, overwhelmingly, that political science is the logical choice as that discipline. On the other hand, the candidate's credentials in international studies are considerably enhanced if work in political science is supplemented with a field in a cognate discipline, e.g., economics.

RESEARCH SKILL REQUIREMENTS Candidates for this degree must pass a tool of research examination in one modern foreign language or in statistics and quantitative analysis to be approved

at the time of advancement to candidacy. The chosen language must be germane to the candidate's field of specialization. In the case of a modern foreign language, the proficiency required for European languages is "4-level", for East Asian languages "2-level", and for other languages "3-level", according to the standards of the Foreign Service Institute of the Department of State. Examinations are administered by the Department of Language and Foreign Studies or by members of the faculty of the School of International Service or other qualified persons as designated by the Dean.

The optional research requirement in statistics and quantitative analysis may be satisfied by a minimum grade of B in three courses: 33.611 Conduct of Political Inquiry, 33.511 Computer Applications in International Relations Analysis, and 33.614 Quantitative Methods in Political Science. The student has the option of passing a written equivalency examination. Other quantitative tools appropriate to the students graduate program (e.g., econometrics, computer science) may be accepted as certified according to the standards of the department offering the tool.

TEACHING SKILLS The school encourages each of its doctoral students to acquire teaching skills by developing and presenting lectures, assuming responsibility for leading classroom discussion, evaluating and grading papers, or participating in course planning, all under the supervision of an appropriate full-time faculty member or members in his or her field. Arrangements for this activity may be made on request to the appropriate faculty members.

Special Features of the School

INDEPENDENT STUDY PROJECTS AND INTERNSHIPS Students are encouraged to engage in independent study projects which take them out of the classroom and into the Washington laboratory to interact with foreign policy-making and administering agencies and people. Students also have the opportunity to gain first-hand experience in the process of foreign policy-making and administration, as well as policy advocacy and research, through internships in government agencies and non-governmental organizations in the Washington area. Students from the School of International Service currently hold internships, with academic credit, in such places as the Department of State, the Department of Commerce, the Arms Control and Disarmament Agency, Library of Congress, the United Nations Association, and several Congressional offices.

SPECIAL SEMESTERS In addition to more conventional modes of study, undergraduate students may also participate in two special semesters: a Foreign Policy Semester and an International Development Semester. These special semesters are an innovative approach to education which permit a group of students, guided by a team of professors, to devote its entire efforts and attention for one semester to a specific topic or theme. The purpose of this modular semester is to integrate and synthesize knowledge from a variety of fields and apply this multidisciplinary approach to the analysis of specific issues or problems in international affairs.

Both the Foreign Policy Semester and the International Development Semester are designed for advanced undergraduate students enrolled from The American University and from cooperating institutions through formal inter-institutional agreements. For further information, write to the Dean, The School of International Service, The American University, Washington, D.C. 20016.

Foreign Policy Semester This semester provides the student with an opportunity to observe and study at first-hand the foreign policy decision-making community in Washington and to become acquainted with the manifold governmental, international, and private activities which contribute to the United States' posture in world affairs. The Program serves not only students majoring in political science or international relations, but also students from other fields of inquiry with an interest in the global aspects of their disciplines.

The Foreign Policy Seminar emphasizes the study of the effect of governmental structure on the policy-making process and the external influences on foreign policy originating with mass media, public opinion, and pressure groups. It includes individual or team research on topics selected in consultation with the instructors and further defined through contact with the foreign policy community in Washington.

International Development Semester This semester permits the student to gain insight into the breadth and complexity of the issues concerning international development through a first-hand view of the activities of the many governmental, international, and private organizations in Washington, D.C. concerned with development. Students will analyze the causes of the widening gap between rich and poor nations, and determine the extent to which the policies of the United States, international agencies, and private corporations help alleviate or exacerbate this crisis. Students

will also consider the development of rich nations, examining the special problems of "over-development" that hinder present and future growth of the developed world. Problems affecting rich and poor nations alike, such as urbanization, environmental control, food production, and population growth will also receive attention.

An independent research project or a research internship is an integral feature of both Special Semesters. Students opting for the internship will have the opportunity to gain first-hand experience and pursue directed research within an organization directly involved in the field of foreign policy or international development.

Students opting for the independent research project will have the opportunity to pursue in depth a topic selected in consultation with a faculty member of the School of International Service and professional foreign policy or international development analysts.

CENTER FOR ASIAN STUDIES The center coordinates Asian studies throughout the University, and administers those programs on Asia given by the School of International Service. Programs are available at the undergraduate, master's and doctoral levels, with emphasis on South Asia, Southeast Asia and on East Asia (China and Japan). The programs of the Center for Asian Studies utilize not only the resources of The American University but also those of other members of the Washington Consortium of Universities.

The disciplines involved are anthropology, art, business, economics, government and politics, history, international relations and religion. The languages involved are Chinese, Hindi, Indonesian, Japanese, Thai and Vietnamese, and Sanskrit. Some of these are offered at The American University, but all are available through the Consortium of Universities.

The Center will award a Certificate of Asian Study to every student upon completion of a degree program which has included a significant emphasis in Asian studies. Undergraduates who wish to qualify for the Certificate must complete satisfactorily four or more courses on Asia or in an Asian language. Graduate students who wish to qualify for the Certificate must complete satisfactorily at least one area related comprehensive examination, appropriate degree level area language certification, and a substantial research paper, thesis, or dissertation dealing with the area.

For further information write to the Director, Center for Asian Studies, School of International Service, The American University, Washington, D.C. 20016.

LATIN AMERICAN STUDIES PROGRAM The Washington Consortium of Universities provides one of the most comprehensive opportunities for the study of Latin America within the United States. The American University occupies a central position with a comprehensive curriculum and a large faculty in this field. The presence in Washington of the Organization of American States and the Inter-American Development Bank enhances this program immeasurably.

Specialization in Latin America is possible under degree programs offered by the School of International Service at all levels. Comprehensive programs in the Spanish and Portuguese languages are available, including courses on Latin American history, politics, international affairs and other subjects taught in Spanish.

PITMAN B. POTTER CENTER FOR WORLD ORDER The Pitman B. Potter Center for World Order was established in 1974 to coordinate course offerings related to the problems of peace and world order from a variety of disciplines; to sponsor lectures and seminars related to these fields; and to facilitate research projects by serving as an informational and resource base for the Washington, D.C. area.

World order is not, as yet, a rigidly defined term in academic circles. The center's definition is based on the following presumptions: (1) to an increasing extent, the nation-state is unable to fully perform its traditional role and functions; (2) parallel and competing trans-national and global institutions have been constructed to supplement the state; ergo (3) a new system of world order is in the process of formulation.

Although no specific series of courses has been laid down for a degree program in world order, a student who desires to pursue such a program would, under current University regulations, be permitted to arrange an interdisciplinary degree at either the B.A. or the M.A. level. For further information, contact the Director, The Pitman B. Potter Center for World Order, The American University, Washington, D.C., 20016; telephone: (202) 686-2485.

INTERNATIONAL ADMINISTRATION FOR WORLD HUMAN NEEDS The program of International Administration for World Human Needs seeks to focus attention on such problems as population and environmental control, agricultural and industrial development, education and health; the interrelationships among these issues; and strategies for dealing with them in a human context

through international agencies and private organizations of a business, religious, philanthropic and service nature.

The program offers a special dimension to the study of international organization, economic development, cross-cultural analysis, and foreign policy through special courses in world human needs, the encouragement of theses and other projects in these areas, and study-tours and internships where appropriate.

For further information write to the Director, Program in International Administration for World Human Needs, School of International Service, The American University, Washington, D.C. 20016.

Courses of Instruction

Undergraduate Courses

FOUNDATION COURSES

33.101 POLITICAL CONCEPTS (c 01.00) Examination of concepts such as politics, power, authority, the state, nationalism, and legitimacy, as well as their applicability in international and comparative politics and in policy analysis.

33.151, 33.152 WESTERN TRADITION I AND II (c 01.00) (c 01.00) Basic introduction to Western European intellectual history; frame of reference to later studies of dynamics of modernization and transition from traditional to secular society.

33.161 CIVILIZATIONS OF AFRICA AND THE MIDDLE EAST (c 01.00) Comparative study of the major historical, political, social and cultural traditions of Africa and Middle East.

33.162 CIVILIZATIONS OF ASIA (c 01.00) Comparative study of the major historical, political, social and cultural traditions of Chinese, Japanese, Indian, and Southeast Asian peoples.

INTERNATIONAL RELATIONS COURSES

33.200 CONTEMPORARY INTERNATIONAL POLITICS: SELECTED TOPICS (c 01.00) Analysis of specific international problem, crisis or issue of contemporary concern. May be repeated for credit if topics differ.

33.201 WORLD POLITICS (c 01.00) Analysis of international relations as political process. Examines conflict and cooperation in international relations by analyzing such processes as diplomacy, alliances, international law and organization, and other forms of interaction.

33.301 THEORIES OF INTERNATIONAL POLITICS (c 01.00) Major trends in recent thinking about international relations, including systemic and behavioral modes of analysis. Examination of problems of explanation and theory building in social sciences with special reference to international studies.

33.307 QUANTITATIVE APPROACHES TO INTERNATIONAL POLITICS (c 01.00) Introduction to quantitative measurement and statistical analysis in international relations research. *Prerequisite:* permission of instructor.

33.321 INTERNATIONAL LAW (c 01.00) Analysis of institutionalized modes of international politics, with emphasis upon the nature and function of international law.

33.325 INTERNATIONAL ORGANIZATION (c 01.00) Analysis of institutionalized modes of international politics, with emphasis upon the nature and functions of international organization.

33.351 FOUNDATIONS OF INTERNATIONAL COMMUNICATION (c 01.00) Examination of the sociology, psychology, and anthropology which operates during transmission of ideas, perceptions and feelings between and within cultures. Considers communications models, perception theories, cultural contact and technological change, public opinion, propaganda, and logic systems.

33.361 FOREIGN POLICIES OF THE GREAT POWERS (c 01.00) Analysis of interaction between the United States and the Soviet Union, and People's Republic of China, with emphasis on period since World War II, and especially present era of negotiations.

33.362 ASIAN POWER RIVALRIES (c 01.00) International politics from Asian perspective, with particular attention to complex relationships among Asian powers: China, Soviet Union, India, Japan.

33.369 SOVIET UNION IN WORLD AFFAIRS (c 01.00) Analysis of recent and contemporary interstate relations in zone of Soviet influence and place of U.S.S.R. in world affairs.

33.370 INTERNATIONAL RELATIONS OF WESTERN EUROPE (c 01.00) Analysis of recent and contemporary interstate relations in Western Europe and place of Western Europe in world affairs.

33.371 SOVIET UNION IN WORLD AFFAIRS (c 01.00) Analysis of recent and contemporary interstate relations in zone of Soviet influence and place of the U.S.S.R. in world affairs.

33.400 SPECIAL TOPICS IN INTERNATIONAL POLITICS (c 01.00) Topics in international politics, including conflict, integration, war, alliances, diplomacy. *Prerequisite:* 33.201 or permission of instructor.

33.409 SEMINAR IN INTERNATIONAL RELATIONS (c 01.00) Research seminar on selected topics in international relations. *Prerequisite:* 33.201, and permission of instructor.

33.420 SELECTED TOPICS IN INTERNATIONAL LAW AND ORGANIZATION (c 01.00) Topics in international law and organization. *Prerequisite:* 33.321, or 33.325, depending on the topic to be considered, or permission of instructor.

33.450 SELECTED TOPICS IN INTERNATIONAL COMMUNICATIONS (c 01.00) Detailed consideration of special topics within general field of communications. *Prerequisite:* 33.351.

33.495 SEMINAR IN WORLD ORDER (c 02.00) Intensive dialogue on problems of securing meaningful world order, based upon insights from such fields as ethics, ecology, geography, political economy, sociology, physics, fiction, and futurology. Reading, discussion, guest speakers.

See also courses in international economics and diplomatic history under the Departments of Economics and History, respectively.

FOREIGN AREAS AND CROSS-NATIONAL STUDIES

33.241 CONTEMPORARY RUSSIA (c 01.00) Introduction to Russia: the contemporary political culture and its historical, economic, geographic, and social roots.

33.242 CONTEMPORARY MIDDLE EAST (c 01.00) Introduction to Middle East: contemporary political culture and its historical, economic, geographic, and social roots, with special attention to Arab world.

33.243 CONTEMPORARY AFRICA (c 01.00) Introduction to Africa: contemporary political culture and its historical, economic, geographical, and social roots, with special attention to Africa south of Sahara.

33.244 CONTEMPORARY EAST ASIA (c 01.00) Introduction to East Asia: contemporary political culture and its historical, economic, geographic, and social roots, with special attention to People's Republic of China and Japan.

33.246 CONTEMPORARY SOUTH ASIA (c 01.00) Introduction to South Asia: contemporary political culture and its historical, economic, geographic, and social roots, with special attention to India, Bangladesh, and Pakistan.

33.247 CONTEMPORARY SOUTHEAST ASIA (c 01.00) Introduction to Southeast Asia: contemporary political culture and its historical, economic, geographic, and social roots.

33.248 CONTEMPORARY LATIN AMERICA (c 01.00) Introduction to Latin America: contemporary political culture and its historical, economic, geographic, and social roots.

33.440 SEMINAR ON WESTERN EUROPE (c 01.00) Problem-oriented, interdisciplinary seminar. *Prerequisite:* minimum of two courses on Western Europe.

33.441 SEMINAR ON THE U.S.S.R. (c 01.00) Problem-oriented, interdisciplinary seminar. *Prerequisite:* minimum of two courses on U.S.S.R.

33.443 SEMINAR ON AFRICA (c 01.00) Problem-oriented, interdisciplinary seminar. *Prerequisite:* minimum of two courses on Africa.

33.444 SEMINAR ON EAST ASIA (c 01.00) Problem-oriented, interdisciplinary seminar. *Prerequisite:* minimum of two courses on East Asia.

33.446 SEMINAR ON SOUTH ASIA (c 01.00) Problem-oriented, interdisciplinary seminar. *Prerequisite:* minimum of two courses on South Asia.

33.447 SEMINAR ON SOUTH EAST ASIA (c 01.00) Problem-oriented, interdisciplinary seminar. *Prerequisite:* minimum of two courses on Southeast Asia.

33.448 SEMINAR ON LATIN AMERICA (c 01.00) Problem-oriented, interdisciplinary seminar. *Prerequisite:* minimum of two courses on Latin America.

33.449 SEMINAR: SELECTED TOPICS (c 01.00) Problem-oriented, interdisciplinary seminar with focus on one specific issue common to several regions of the world. *Prerequisite:* permission of instructor.

See also courses in cultural anthropology, history, literature, comparative economics, and comparative politics under the Departments of Anthropology, History, Language and Foreign Studies, and Economics, and the School of Government and Public Administration, respectively.

POLICY ANALYSIS

33.281 POLICY ANALYSIS (c 01.00) Public policy formation and implementation, with attention to analysis, evaluation and forecasting in such policy areas as diplomacy, security, welfare, health, education, environment, and finance. Major focus on United States, with some comparative dimension.

33.285 COMPARATIVE FOREIGN POLICY (c 01.00) Policy formation and implementation of selected nation-states, treated comparatively. Analysis of the impact of foreign policies of selected countries on development, international stability, and environment.

33.381 UNITED STATES FOREIGN POLICY (c 01.00) Analysis of American foreign policy, diplomatic process, including role of President, Congress, Department of State, and other agencies in foreign policy making. *Prerequisite:* 33.281, or course in American government or public policy (53.321, 53.322, 53.340).

33.383 NATIONAL SECURITY POLICY (c 01.00) National security policy formulation, including role of the intelligence community, military-industrial relations and legislative-executive interaction. Analysis of role of force in international relations, including approaches to arms control, deterrence theory and insurgency.

33.385 FOREIGN ECONOMIC POLICY (c 01.00) Intensive study of major currents and issues in U.S. foreign economic policy, including trade policy, international monetary system, foreign investment and multinational corporations, foreign aid, world energy problem.

33.480 SPECIAL TOPICS IN POLICY ANALYSIS (c 01.00) Analysis of selected topics in public policy, with special attention to diplomatic, security, economic, or environmental policies. *Prerequisite:* 33.281 or 33.285 or permission of instructor.

33.489 SEMINAR IN POLICY ANALYSIS (c 01.00) Research seminar on selected topics in policy analysis. *Prerequisite:* 33.281 or 33.285 or permission of instructor.

See also courses in political science and public administration under the School of Government and Public Administration.

SPECIAL COURSES

33.390 INDEPENDENT READING (c 00.25 through 02.00)*

33.391 INTERNSHIP IN INTERNATIONAL AFFAIRS (c 00.25 through 04.00) Direct involvement in policymaking process through participation in government agency or non-governmental organization. Credit varies depending upon nature of internship and number of hours involved. *Prerequisite:* permission of coordinator of internships, SIS.

33.490 INDEPENDENT STUDY PROJECT (c 00.25 through 02.00)*

33.491-33.494 SPECIAL SEMESTERS IN INTERNATIONAL STUDIES

(1) *Foreign Policy Semester* Innovative approach to education which permits group of students, guided by team of professors, to devote their entire efforts and attention for one semester to specific theme of United States foreign policy formulation, and implementation. Systematic study of foreign policy emphasizes qualitative analysis; employs quantitative methods as appropriate. All students actively participate in seminars, workshops, on-site observation, and individual and joint research projects, and meet with foreign-policy makers and influencers from government, media, and other private sector organizations. Internship optional. *Prerequisite:* junior or senior standing and permission of the coordinator of the semester.

* See description under "General Curriculum Information" in this publication.

(2) *International Development Semester* Innovative approach to education which permits group of students, guided by team of professors, to devote their entire efforts and attention for one semester to the specific theme of development. Integrates and synthesizes knowledge from variety of fields and applies this multidisciplinary approach to the analysis of specific issues and problems in fields of political, economic, and social development. All students actively participate in special seminars and conferences, individual and team research projects, on-site observation and field investigations, simulation exercises, and computer-aided measurement and analysis of development data. Internship optional. *Prerequisite*: junior or senior standing and permission of the coordinator of the semester.

33.491 SPECIAL SEMESTERS IN INTERNATIONAL STUDIES (c 01.00) (1) Foreign Policy Research/Internship; (2) International Development Research/Internship.

33.492 SPECIAL SEMESTERS IN INTERNATIONAL STUDIES (c 01.00) (1) Foreign Policy Semester I; (2) International Development Semester I.

33.493 SPECIAL SEMESTERS IN INTERNATIONAL STUDIES (c 01.00) (1) Foreign Policy Semester II; (2) International Development Semester II.

33.494 SPECIAL SEMESTERS IN INTERNATIONAL STUDIES (c 01.00) (1) Foreign Policy Semester III; (2) International Development Semester III.

Graduate and Advanced Undergraduate Courses

INTERNATIONAL COMMUNICATIONS

33.553 PSYCHOLOGICAL AND CULTURAL BASES OF INTERNATIONAL POLITICS (s 03.00) Phenomena and problems of international political behavior in terms of underlying psychological and cultural forces. Theory of international politics from behavioral science points of view. *Prerequisite*: 33.351 or 33.651.

REGIONAL INTERNATIONAL SYSTEMS

33.560 INTERNATIONAL RELATIONS BETWEEN THE WARS (s 03.00) Diplomacy of 1919–1939 period, with particular reference to Europe. Development and breakdown of French system, collective security, Fascism, Nazism, Soviet Union, and role of U.S. in European affairs.

33.561 THE MODERN ARAB WORLD (s 03.00) Analysis of contemporary politics and international relations in Arab world.

33.563, 33.763 INTERNATIONAL RELATIONS OF AFRICA I AND II (s 03.00) (s 03.00) Analysis of recent history and contemporary relations in Africa and the place of Africa in world affairs.

33.564 MODERN CHINA (s 03.00) Emergence of China as world power, with emphasis on economic, political, and social trends in People's Republic of China today.

33.565 MODERN JAPAN (s 03.00) Study of continuity and change in Japan's post-war society as contrasted with the pre-war society.

33.566 INTERNATIONAL RELATIONS OF SOUTH ASIA (s 03.00) Analysis of recent and contemporary interstate relations in South Asia and place of South Asia in world affairs.

33.568, 33.578 INTERNATIONAL RELATIONS OF LATIN AMERICA I AND II (s 03.00) (s 03.00) Analysis of recent and contemporary interstate relations in Latin America and place of Latin America in world affairs.

33.570 FOREIGN POLICY FORMULATION IN EUROPEAN STATES (s 03.00) Analysis of foreign policy formulation in western European states, including study of conditioning factors, instrumentalities, political parties, pressure groups and organizations, public media and opinion.

33.571, 33.572 INTERNATIONAL RELATIONS OF THE MIDDLE EAST I AND II (s 03.00) (s 03.00) Analysis of recent historical and contemporary interstate relations in Middle East and North Africa and place of Middle East in world affairs.

33.574, 33.575 INTERNATIONAL RELATIONS OF EAST ASIA I AND II (s 03.00) (s 03.00) Analysis of recent historical and contemporary interstate relations in East Asia and place of East Asia in world affairs.

33.576 INTERNATIONAL RELATIONS OF SOUTHEAST ASIA (s 03.00) Analysis of recent and contemporary interstate relations in Southeast Asia and place of Southeast Asia in world affairs.

33.579 POLITICS AND SOCIOLOGY OF MODERN EUROPE (s 03.00) Social, political, and institutional change in Western Europe since 1945.

WORLD HUMAN NEEDS

33.530 WORLD HUMAN NEEDS AND INTERNATIONAL PLANNING (s 03.00) Interdisciplinary approach to world human needs; social, economic, political, and moral implications of growing chasm between rich and poor nations; world population growth, resources, environmental pollution; differences of opportunity for food, health; housing, education, employment, social security, migration, brain-drain; implications of resentment and violence potentials; priority needs; problems and possibilities of international planning.

33.531 WORLD HUMAN NEEDS AND INTERNATIONAL ADMINISTRATION (s 03.00) Consideration of problem of international service and development agencies in field of world human needs, including relief, economic assistance, and development. Presentations made by religious agencies, United Nations, World Bank, and U.S. Government program administrators, and consideration of other possibilities for meeting future world human needs.

33.532 SPECIAL TOPICS IN WORLD HUMAN NEEDS (s 03.00) Intensive analysis of selected topics in world human needs. Topics have included world food resources and policy, international administration, international planning, world population dynamics, disaster preparedness and relief, world housing and world geography.

GENERAL COURSES

33.500 SPECIAL TOPICS IN CONTEMPORARY ISSUES (s 03.00) Intensive analysis of selected topics in contemporary international relations or intercultural understanding. Topics have included population dynamics, war crimes, ethnicity and international politics, Chinese ideology, reform and revolution in Latin America, etc. For graduate students, these topics are applicable to variety of comprehensive fields and specializations; please consult with the Office of Graduate Studies, SIS.

33.501 TWENTIETH CENTURY POLITICAL IDEAS AND MOVEMENTS (s 03.00) Theory of mass psychology, crowds, political sects; roll of intellectuals including such thinkers as Mosca, Pareto, Le Bon, and Michels; Max Weber's theory of bureaucracy and charisma; communism and French intellectuals; National Socialism as charismatic-bureaucratic phenomenon. Transition, end of ideology, changing roles of intellectuals in advanced societies.

33.503 MULTINATIONAL CORPORATIONS (s 03.00) Study of structure and functions of multinational corporations in global system and their developmental impact upon other actors.

33.517 SURVEY RESEARCH METHODOLOGY (s 03.00) Survey method as principal tool in comparative politics research; applicability, strengths, and limitations. Techniques and problems of data collection, data processing, and data analysis. *Prerequisite:* a basic course in statistics is highly recommended.

33.561 DIPLOMACY OF WORLD WAR II (s 03.00) History of the diplomatic front during the war. Groundwork of postwar settlement.

33.590 INDEPENDENT READING COURSE (s 01.00 through 06.00)*

Graduate Courses

INTERNATIONAL RELATIONS

33.601 FOCI OF ANALYSIS IN INTERNATIONAL RELATIONS (s 03.00) Problem identification, definition of boundaries of the field, development of normative and analytic goals, and establishment of priorities.

33.603 SYSTEMATIC INTERNATIONAL RELATIONS (s 03.00) Examination of alternative analytical perspectives, selection of appropriate methods and development of research plans. *Prerequisite:* 33.601 or equivalent.

33.605 INTERNATIONAL CONFLICT AND CONFLICT RESOLUTION (s 03.00) Conflict theory and approaches to mitigation and resolution of conflict in international system.

33.609 SEMINAR IN INTERNATIONAL RELATIONS (s 03.00) Research seminar. Organization may

*See description under "General Curriculum Information" in this publication.

vary according to need around substantive problem focus, technique focus, or more general focus. *Prerequisite:* 33.601 and 33.603, or equivalent.

33.710 COLLOQUIUM IN INTERNATIONAL RELATIONS (s 03.00) Intensive dialogue among faculty members and doctoral students in the international relations field. Some M.A. students admitted with permission. Reading and discussion of literature and ideas in an aspect of field announced in advance by the Office of Graduate Studies, SIS. Preparatory for comprehensive examination.

Note: See also appropriate topics under 33.500, as well as 33.553 under International Communication field.

INTERNATIONAL LAW AND ORGANIZATION

33.621 INTERNATIONAL LAW (s 03.00) Nature and functions of international law in interstate relations, with emphasis on recent trends in scholarship as well as cases, documents and other original materials.

33.625 INTERNATIONAL ORGANIZATION (s 03.00) Organization of international system, with emphasis on institutional forms of international order and functions and processes of global and regional organizations.

33.629 SEMINAR IN INTERNATIONAL LAW AND ORGANIZATION (s 03.00) Research Seminar. Organization may vary according to need around a substantive problem focus, a technique focus, or a more general focus. *Prerequisite:* 33.621 or 33.625, depending on topic considered, or equivalent.

33.720 COLLOQUIUM IN INTERNATIONAL LAW AND ORGANIZATION (s 03.00) Intensive dialogue among faculty members and doctoral students in international law and organization field. Some M.A. students admitted with permission. Reading and discussion of literature and ideas in an aspect of field announced in advance by the Office of Graduate Studies, SIS. Preparatory for comprehensive examination.

Note: See also appropriate topics offered under 33.500.

INTERNATIONAL COMMUNICATION

33.651 FOUNDATIONS OF INTERNATIONAL COMMUNICATION (s 03.00) Concepts, theories and problems of international communication in terms of individual group behavior as presented in social and behavioral sciences.

33.655 CROSS-CULTURAL COMMUNICATION (s 03.00) Contribution of relevant social and behavioral sciences to study of intercultural and cross-cultural communication. Culture as communication and analysis of value-systems as essential element in communication. *Prerequisite:* 33.651 or equivalent.

33.657 COMMUNICATION AND POLITICAL DEVELOPMENT (s 03.00) Theories and models of communication and political development. Communication patterns and political socialization in modernization process. *Prerequisite:* permission of instructor.

33.658 COMMUNICATION IN SOCIAL AND ECONOMIC DEVELOPMENT (s 03.00) Communication as instrument of social and economic development. Uses of communication for national integration, social change, and diffusion of innovation. *Prerequisite:* permission of instructor.

33.750 COLLOQUIUM IN INTERNATIONAL COMMUNICATION (s 03.00) Intensive dialogue among faculty members and doctoral students in international communication field. Some M.A. students admitted with permission. Reading and discussion of literature and ideas in an aspect of the field announced in advance by Office of Graduate Studies, SIS. Preparatory for comprehensive examination.

Note: See also courses offered in the Department of Communication, especially 17.531 International Communication Systems, and 17.760 Methodology of Communication Research.

REGIONAL INTERNATIONAL SYSTEMS

33.660, 33.670 INTERNATIONAL RELATIONS OF WESTERN EUROPE I AND II (s 03.00) (s 03.00) Analysis of recent and contemporary interstate relations in Western Europe and place of Western Europe in world affairs.

33.669 SOVIET RUSSIA IN WORLD AFFAIRS (s 03.00) Analysis of recent and contemporary interstate relations in areas of Soviet influence and place of U.S.S.R. in world affairs.

33.675 SPECIAL TOPICS IN REGIONAL INTERNATIONAL RELATIONS (s 03.00) Intensive analysis of selected topics in contemporary international relations with regional or area focus. *Prerequisite:* appropriate regional course at xx.500 or xx.600 level or equivalent.

33.679 SEMINAR IN REGIONAL RELATIONS (s 03.00) Research seminar with focus on international relations of specified area, region, or country, or place of that area, region or country in world affairs. *Prerequisite:* Appropriate regional course at xx.500 or xx.600 levels or equivalent.

33.770 COLLOQUIUM ON REGIONAL INTERNATIONAL SYSTEMS (s 03.00) Intensive dialogue among faculty members and doctoral students in regional international systems field. Some M.A. students admitted with permission. Reading and discussion of literature and ideas in an aspect of the field announced in advance by Office of Graduate Studies, SIS.

Note: See also appropriate topics offered under 33.500 and in diplomatic history by the Department of History.

U.S. AND COMPARATIVE FOREIGN POLICY

33.680 THE UNITED STATES IN WORLD AFFAIRS (s 03.00) Analysis of recent and contemporary interstate relations in areas of American influence and place of United States in world affairs.

33.681 UNITED STATES FOREIGN POLICY (s 03.00) Principal elements of U.S. foreign policy, factors shaping it, and problems of conduct and control.

33.682 INTERNATIONAL CONFLICT AND CONFLICT RESOLUTION (s 03.00) Conflict theory and approaches to mitigation and resolution of conflict in the international system.

33.683 NATIONAL SECURITY POLICY (s 03.00) Principal elements of U.S. national security policy, including policy making, implementation and control; civilian-military, military-industrial, executive-legislative relations; interaction of security policy of United States and other powers.

33.684 FOREIGN ECONOMIC POLICY (s 03.00) Intensive study of the major current issues in U.S. foreign economic policy. Issues examined from points of view of foreign policy, domestic economic conditions, and domestic politics.

33.685 COMPARATIVE FOREIGN POLICY (s 03.00) Interaction of domestic and international policies of nation states; internal and systemic determinants of foreign policy examined comparatively.

33.687 EXECUTIVE-LEGISLATIVE INTERACTIONS IN U.S. FOREIGN POLICY (s 03.00) Roles and relationships of Congress, President, executive agencies, and public opinion in the development of foreign policy and its administration. Interrelationships of domestic and foreign policy issues. *Prerequisite:* 33.681 or equivalent.

33.688 ADMINISTRATION OF INTERNATIONAL PROGRAMS (s 03.00) Comparative analysis of national and international administrative processes and problems, focusing on the administration of the foreign policies of United States and of selected United Nations programs.

33.689 SEMINAR IN FOREIGN POLICY ANALYSIS (s 03.00) Research seminar. Organization varies according to need around substantive problem focus, technique focus, or more general focus. *Prerequisite:* 33.681 or 33.685, depending on topic considered, or equivalent.

33.780 COLLOQUIUM ON U.S. AND COMPARATIVE FOREIGN POLICY (s 03.00) Intensive dialogue among faculty members and doctoral students in U.S. and Comparative Foreign Policy field. Some M.A. students admitted with permission. Reading and discussion of literature and ideas in an aspect of the field announced in advance by Office of Graduate Studies, SIS. Preparatory for comprehensive examination.

Note: See also appropriate topics offered under 33.500 and in the School of Government and Public Administration.

COMPARATIVE GOVERNMENT AND POLITICS

Although this field is jointly planned and taught by the School of International Service and the School of Government and Public Administration, the courses are listed under the latter.

GENERAL COURSES

33.611 CONDUCT OF POLITICAL INQUIRY AND RESEARCH (s 03.00) Introduction to quantitative measurement and statistical analysis in international relations research.

33.690 INDEPENDENT STUDY PROJECT (s 01.00 through 06.00)*

33.797 MASTER'S THESIS SUPERVISION (s 01.00 through 06.00)

33.799 DOCTORAL DISSERTATION SUPERVISION (s 01.00 through 12.00)

* See description under "General Curriculum Information" in this publication.

Technology and Administration

DIRECTOR John M. Richardson, Jr.

Administrative Officer Joseph J. Gibbs

Assistant for Research and Development Program Ursula G. Lohmann

Program Director, Computer Systems Applications Richard A. Bassler

Program Director, Operations Research

Program Director, Scientific and Technical Information Systems Isaac D. Welt

Program Director, Management Information Systems Walter J. Kennevan

Program Director, Science/Technology Policy and Administration Lowell H. Hattery

Program Director, Environmental Systems Management Martha C. Sager

FULL-TIME FACULTY

Professor L. H. Hattery, M. C. Sager, I. D. Welt

Associate Professor R. A. Bassler, W. H. Gammon, W. J. Kennevan, J. M. Richardson Jr., M. I. Rosenberg

Adjunct Faculty See listings under part-time faculty in this publication.

FIELDS OF STUDY Computer systems applications, operations research, scientific and technical information systems, management of information systems, science/technology policy and administration, environmental systems management.

TECHNOLOGY OF MANAGEMENT The Center for Technology and Administration was established in 1958 to provide a vehicle for the study of the effect of the evolving modern technology on administrative processes.

The discipline, technology of management, complements study in business management, government and public administration, and the classical fields of mathematics and science. It evolved from the acceptance of the electronic digital computer with its associated communications capabilities, as well as from the emergence of a broad and substantial quantitative theory of the properties, structure and flow of information. It approaches problems in all fields involving information transfer, transformation and storage. The discipline should be included in the education of those who will be involved in the management, or design, or development of large, complex systems involving people, resources and objectives. It includes but is not limited to the use of computers in systems analysis, systems dynamics, statistics, computer assisted instruction, command and control systems, data systems, information storage and retrieval, simulation and modeling and quantitative policy development.

Undergraduate Degree Program

Bachelor of Science in Technology of Management

MAJOR IN TECHNOLOGY OF MANAGEMENT

This program is designed to prepare students to apply modern technological resources so that organizations, public and private, utilize man-machine assets in the most effective, efficient and

economical way. Sufficient freedom of choice has been built into the curriculum to provide a path for the most demanding student to satisfy both his needs and desires and the standards of the University. The multidisciplinary nature of the program is intended for students whose interest in the fields of management and information sciences transcends that of mere technical knowledge of computing and communications equipment.

ADMISSION AND CONTINUATION Requirements for admission to or continuation in the program are stated under the "Admission to Undergraduate Study" and "Undergraduate Degree Requirements" sections of this publication.

UNIVERSITY REQUIREMENTS Those in the Bachelor of Science in Technology of Management program are bound by the general University requirements as stated under "Undergraduate Degree Requirements" in this publication.

SCHOOL OR COLLEGE REQUIREMENTS For undergraduate technology of management majors who are registered in the Center for Technology and Administration of the College of Public Affairs, the program requires no additional features other than those described below in the technology of management program.

ADVANCED PLACEMENT In accordance with the University's rules, freshman applicants may earn advanced standing credit which may be used toward fulfilling degree requirements (see "Admission to Undergraduate Study" in this publication).

DEAN'S HONORS LIST The names of students in the Bachelor of Science in Technology of Management program who achieve a grade point average of 3.50 or higher are placed on the Dean's Honor List for that semester. Appearance on the list will be limited to (1) full-time students registered for a minimum of four course units and (2) part-time students registered for a minimum of three course units over a period of two consecutive semesters. A Summer Session may be included.

COMPOSITION AND READING REQUIREMENT 23.100 Composition and Reading I; 23.101 Composition and Reading II.

MAJOR REQUIREMENTS

Foundation Courses To total seven courses: 41.100 Finite Mathematics; 41.101 Applied Calculus I; 69.202 Basic Statistics; 69.300 Business Statistics; 10.206 Introduction to Financial Accounting; 10.207 Introduction to Managerial Accounting; 10.201 Business Law or 55.471 Fundamentals of Technology of Management.

Major Field To total eight courses from: (1) one of the following: 55.333 Computer Programming: FORTRAN, 55.334 Computer Programming: COBOL, 55.335 Computer Programming: PL/1, or 55.491 Internship in Computer Programming; (2) 55.337 Problem Analysis or 55.331 Introduction to Computer Design; (3) 55.360 Management of the Computer; (4) 55.431 Documentation of Computer Systems or 55.432 Introduction to Simulation and Modeling; (5) additional courses taken from the programs in technology and management in the Center for Technology and Administration or in the programs offered by the Department of Mathematics and Statistics, to make a total of eight courses in the major field.

There are also double major programs available. Consult the Director, Center for Technology and Administration, for information.

Related Courses Five courses selected from the fields of government, international service, business, economics, natural science, psychology, and sociology, with not more than two of the five courses taken from the same field.

Electives To complete the minimum of thirty-two course units.

Graduate Degree Program

Master of Science in Technology of Management

BACKGROUND The Master of Science in Technology of Management is a professional degree designed to equip qualified candidates with a concentrated background in two of the six fields of computer systems applications, management information systems, operations research, scientific and technical information systems, science/technology policy and administration, and environmental systems management. Areas for concentrated effort may be selected from a wide spectrum of subject matter to satisfy the student's requirements.

ADMISSION Candidates applying for admission to the Master of Science in Technology of Management program must have a bachelor's degree from an accredited college or university. The applicant must satisfy certain grade point averages as outlined in this publication. Forms for application to the graduate program may be obtained from the Office of Admissions, Financial Aid and Veterans Affairs, Programs and Services. It is recommended that the student consult a faculty advisor in the Center for Technology and Administration before submitting an application.

Provisional admission may be granted to those students who do not meet the minimum standards for admission. This may be accomplished by demonstrated academic performance in graduate course work in one of the six graduate certificate programs offered by the College of Continuing Education in conjunction with the Center for Technology and Administration.

PROGRAM In addition to the prerequisites and foundation courses or their equivalents, the program consists of the completion of at least thirty-six graduate hours of course work distributed over two fields of concentration. These would be selected to prepare the student for the required comprehensive examination. In addition to courses in the general requirements, at least fifteen hours must be taken in field courses in the major field including the seminar in that major. The other field requirement may be satisfied by twelve hours of field courses, that may include the seminar.

COMPREHENSIVE EXAMINATION AND MAJOR FIELDS The comprehensive examination, which culminates the degree program, will be offered each semester for all of the major fields. The student can thus plan the completion of the degree program to meet his or her own scheduling requirements. A student is prepared to take the appropriate comprehensive examination when all the required general and field courses plus appropriate courses from the second field have been completed. In most cases, the student will be advised to take the comprehensive examination in the same semester the technology of management major field seminar is taken. The student's advisor will approve the application for the comprehensive examination. The major fields and their respective identifying numbers are: 55.63M Computer Systems Applications; 55.64M Operations Research; 55.65M Scientific & Technical Information Systems; 55.66M Management Information Systems; 55.67M Science/Technology Policy and Administration; 55.68M Environmental Systems Management.

MAJOR IN TWO TECHNOLOGY OF MANAGEMENT FIELDS The degree requirements for a program involving two technology of management fields requires: (1) Taking the courses, or satisfying through previous course work or experience, all of the foundation requirements stipulated for both of the fields. No graduate credit for foundation courses. (2) Satisfying by course work the general requirements of both fields. (3) Completion of *at least* four field courses (all Center for Technology and Administration graduate courses are three semester hours) *and* the seminar in the *major* field. (4) Satisfy the requirements of the secondary field by the completion of *at least* four field courses in that field that may include the seminar in that field. (5) Taking sufficient related and approved electives to complete the requirements for thirty-six graduate hours. (6) Passing the comprehensive examination in the major field.

MAJOR IN ONE TECHNOLOGY OF MANAGEMENT FIELD The degree requirements for a program involving one technology of management field requires: (1) Taking the courses, or satisfying through previous course work or experience, all of the foundation requirements stipulated for the one field. No graduate credit for foundation courses. (2) Satisfying by course work the general requirements of the one field. (3) Completion of at least six field courses and the seminar in that field. No more than two of these field courses may be independent study courses. (4) Taking at least two courses from a related field within the technology of management program. (5) Completion of sufficient related and approved electives to complete the requirements for a minimum of thirty-six graduate hours of graduate work. (6) Passing the comprehensive examination in the field.

MAJOR IN ONE TECHNOLOGY OF MANAGEMENT FIELD AND ONE SPECIAL FIELD The degree requirements for the Master of Science in Technology of management may be satisfied by work in CTA and one other department of The American University. This is a special program designed for students who have multidisciplinary interests and each one of these programs is developed by the student and faculty advisor and approved by the Director of the Center for Technology and Administration. The requirements are: (1) Taking the courses, or satisfying through previous course work or experience all of the foundation requirements required for both the technology of management field as well as the field developed with another department in the University. (2) Satisfying the general requirement course work of the one technology of management field as well as any stipulated for the "special" field. (3) Completion of at least four field courses and the seminar in the technology of management major field. (4) Satisfying the requirements of the special field by the completion of at least four courses required of that department and approved by them as a

suitable curriculum for an area of concentration. (5) Taking sufficient related and approved electives to complete the requirements for a minimum of thirty-six graduate hours. (6) Passing the comprehensive examination in the technology of management field.

Programs involving special fields with other American University departments have been employed by students in economics, computer science, mathematics, chemistry, education, urban affairs, business administration, public administration.

ADVISEMENT Each student will be assigned a faculty advisor who will outline and approve the student's program. Courses and their sequence will be planned. If the thesis option is chosen, the faculty advisor may be the thesis director. The program must be completed with at least a B average for all the graduate courses taken.

THESIS OR RESEARCH PROJECT Under all Center for Technology and Administration programs, one of the following options must be satisfied: (1) master's thesis in the subject matter related to the major field (six hours); or (2) independent research project(s) totalling six hours; or (3) one research oriented course at the xx.600 level plus the required xx.700 level seminar.

REQUIREMENTS FOR FIELDS OF CONCENTRATION The candidate for the Master of Science in Technology of Management will select appropriate fields from the six listed below. No graduate credit will be given for the foundation requirements. However, they may be satisfied by previous equivalent course work or in some cases by experience.

55.63M COMPUTER SYSTEMS APPLICATIONS

Foundation Requirements 55.310 Introduction to Data Processing; 55.333 Computer Programming: FORTRAN or 55.334 Computer Programming: COBOL or 55.335 Computer Programming: PL/1; 55.411 Introduction to Management Mathematics; 69.400 Managerial Statistics or 69.300 Business Statistics.

General Requirements 55.511 The Systems Approach; 55.530 Real-Time Systems.

Field Courses 55.531 Computer Design and Comparative Systems; 55.632 Simulation and Modeling; 55.633 Programming Systems and Language; 55.635 Workshops in Computer Systems; 55.637 Workshop in Operating Systems; 55.730 Seminar in Computer Systems Applications.

55.64M OPERATIONS RESEARCH

Foundation Requirements 41.222 Calculus II; 69.400 Managerial Statistics or 69.300 Business Statistics.

General Requirements 55.514 Operations Research Approach; 55.542 Probability and Statistics for Management Decisions.

Field Courses 55.641 Methods of Operations Research I; 55.642 Methods of Operations Research II; 55.645 Workshops in Operations Research; 55.646 Cost-Benefit Analysis; 41.576 Mathematical Methods of Operations Research; 55.740 Seminar in Operations Research.

55.65M SCIENTIFIC AND TECHNICAL INFORMATION SYSTEMS

Foundation Requirements 55.310 Introduction to Data Processing; 55.333 Computer Programming: FORTRAN or 55.335 Computer Programming: PL/1; 55.411 Introduction to Management Mathematics; 69.400 Managerial Statistics or 69.300 Business Statistics.

General Requirements 55.512 Introduction to Cybernetics and Systems Science; 55.530 Real-Time Systems.

Field Courses 55.550 Survey of Information Science and Technology; 55.560 Natural Language Data Processing; 55.653 Concepts of Abstracting and Indexing; 55.654 Workshop in Technical Information Handling; 55.656 Publication Techniques; 55.750 Seminar in Scientific and Technical Information Systems.

55.66M MANAGEMENT INFORMATION SYSTEMS

Foundation Requirements 55.310 Introduction to Data Processing; 55.333 Computer Programming: FORTRAN or 55.334 Computer Programming: COBOL or 55.335 Computer Programming: PL/1; 55.411 Introduction to Management Mathematics; 69.400 Managerial Statistics or 69.300 Business Statistics.

General Requirements 55.511 The Systems Approach; 55.530 Real-Time Systems.

Field Courses 55.560 Systems Design for Business Operations; 55.561 Management of Automatic Data Processing Systems; 55.562 Management of Institutional Records Systems: Creation; 55.563 Management of Institutional Records Systems: Maintenance and Retention; 55.660 Management Information and Reporting Systems; 55.661 Telecommunications and Management Information Systems; 55.665 Workshop in Management Information Systems; 55.760 Seminar in Management Information Systems.

55.67M SCIENCE/TECHNOLOGY POLICY AND ADMINISTRATION

Foundation Requirements 69.400 Managerial Statistics or 69.300 Business Statistics.

General Requirements 55.513 Change and the Managerial Process; 55.570 The Management of Research and Engineering.

Field Courses 55.571 Technological Forecasting and Assessment; 55.670 The Politics and Economics of R & D; 55.671 R & D in the Total Organization; 55.672 Scientific and Engineering Manpower; 55.673 Planning and Control of R & D Operations; 55.770 Seminar in R & D Management.

55.68M ENVIRONMENTAL SYSTEMS MANAGEMENT The environments of planet Earth include natural ecological systems such as limnological, fresh water systems, marine saline habitats, estuarine and coastal ecotones, savannahs, grasslands, deserts, alpine and tundra regions, arctic and tropical rainforests, and others.

Three topic programs are available within the environmental systems management section of the Center for Technology and Administration: General Environmental Systems Management, Ocean Affairs Management, and Toxic and Hazardous Materials Management. Course numbers and titles are listed for each series under basic topic numbers in the generic series. Foundation and general requirements are the same for each area and are listed only once.

Foundation Requirements 55.310 Introduction to Data Processing; 55.333 Computer Programming: FORTRAN or 55.334 Computer Programming: COBOL or 55.335 Computer Programming: PL/1; 55.411 Introduction to Management Mathematics; 69.400 Managerial Statistics or 69.300 Business Statistics; plus an adequate background in basic undergraduate science courses.

General Requirements 55.511 The Systems Approach; 55.571 Ecology and the Human Environment (instruction by radio).

Field Courses 55.580 Environmental Systems Analysis; 55.580 Coastal and Estuarine Environmental Survey; 55.581 Technological Systems in Environmental Management; 55.581 Technological Systems and Engineering Principles; 55.582 Administrative Systems in Environmental Management; 55.582 Administrative Systems: Law of the Sea; 55.680 Environmental Systems Analysis of Toxic and Hazardous Materials; 55.681 Technological Systems Management of Toxic and Hazardous Materials; 55.682 Administrative Systems Management of Toxic and Hazardous Materials; 55.683 Pollution Abatement Potentials; 55.683 Pollution Abatement Potentials for the Management of Ocean Affairs; 55.683 Pollution Abatement Potentials for the Management of Toxic and Hazardous Materials; 55.684 Conservation and Environmental Systems Management; 55.684 Conservation in Ocean Affairs; 55.684 Conservation and Toxic Materials Management; 55.685 Workshop in Environmental Systems Management; 55.685 Workshop in Ocean Affairs; 55.685 Workshop in Toxic and Hazardous Materials; 55.780 Seminar in Environmental Systems Management; 55.780 Seminar in Management of Ocean Affairs; 55.780 Seminar in Management of Toxics.

A series of dial access, independent study courses are available and may be substituted for some of the field requirements above by permission of the environmental systems management program director. These courses are all numbered 55.588 and include the following: Pollution Problems in Environmental Systems Management; Housing Problems in Environmental Systems Management; Ecology of Comparative Biotic Systems; Parasitic Disease: Socio-Economic Effects on Developing Nations; Air Pollution Problems; 55.588 Malnutrition, Mental Retardation, Public Administration; Practical Scientific and Technical Writing.

Courses of Instruction

Undergraduate Courses

55.310 INTRODUCTION TO DATA PROCESSING (c 01.00) Overview of modern data processing. Elements of digital computer system organization, operation and programming: survey of computer applications, systems analysis and information science.

- 55.331 INTRODUCTION TO COMPUTER DESIGN (c 01.00)** Course covers number systems, codes and Boolean Algebra. Computer circuits and blocks examined. Relationship between various computer units compared. *Prerequisite:* 55.310.
- 55.333 COMPUTER PROGRAMMING: FORTRAN (c 01.00)** Basic concepts of computer programming using FORTRAN.
- 55.334 COMPUTER PROGRAMMING: COBOL (c 01.00)** Basic concepts of computer programming using COBOL (Common Business Oriented Language).
- 55.335 COMPUTER PROGRAMMING: PL/1 (c 01.00)** Basic concepts of computer programming using PL/1 programming language.
- 55.337 PROBLEM ANALYSIS (c 01.00)** Course develops fundamental ideas involved in reduction of problems to computable form. Students learn elements of BASIC and use of remote real-time terminals and construct and program simple algorithms for sorting, arithmetic and logical games and management procedures such as PERT. *Prerequisite:* 55.310 (or may be taken concurrently).
- 55.360 MANAGEMENT AND THE COMPUTER (c 01.00)** Develops concept of computer as a tool of management. Examines present and future capabilities in effective management utilization and exploitations of computer techniques within business enterprise. *Prerequisite:* 55.310.
- 75.380 INTRODUCTION TO ENVIRONMENTAL MANAGEMENT (c 01.00)** Comprehensive, multi-disciplinary approach to this vital new profession; includes survey of human sciences, natural sciences, and information sciences as each interacts with government and business practices in development of pathways for sound management of our environment. (Emphasis on audio-visual aids—movies, slides, class presentations.)
- 55.390 INDEPENDENT READING COURSE IN TECHNOLOGY AND ADMINISTRATION (c 00.25 through 02.00)***
- 55.396 SELECTED TOPICS (Non-Recurring)***
- 55.410 ESSENTIALS OF DATA PROCESSING (c 01.00)** Basic course in data processing for those interested in fundamental look at functions of data processing in business and government worlds. Not to be taken in the technology of management program.
- 55.411 INTRODUCTION TO MANAGEMENT MATHEMATICS (c 01.00)** Emphasis is on use of quantitative methods in decision-making. Designed for advanced undergraduates, objective is to provide student with working knowledge of mathematical reasoning basic to the new and powerful analytical tools of management which, when used properly, can yield valuable insights into interrelationships which are essence of management decision-making. Not to be taken in B.S.T.M. program.
- 55.431 DOCUMENTATION OF PROGRAMS AND SYSTEMS (c 01.00)** Relationship between management need for clear cut documentation of all aspects of computer systems and requirements of computer analysts' and programmers' needs. Various methods of documentation of computer programs and systems examined. *Prerequisites:* one programming language and 55.360.
- 55.432 INTRODUCTION TO SIMULATION AND MODELING (c 01.00)** Students design and construct computer models and simulators and use them in applying scientific method to study of dynamic systems as in economics, ecology, and transportation. *Prerequisites:* one programming language, and 69.300.
- 55.433 ADVANCED FORTRAN TECHNIQUES (c 01.00)** Examination of current methods for the successful implementation of FORTRAN systems using advanced programming philosophies. *Prerequisite:* 55.333 or permission of instructor.
- 55.434 ADVANCED COBOL TECHNIQUES (c 01.00)** Applications of current advanced programming techniques to solution of COBOL programming problems. *Prerequisite:* 55.334 or permission of instructor.
- 55.435 ADVANCED PL/1 TECHNIQUES (c 01.00)** Designed to fit needs of computer professional charged with responsibilities in design and implementation of information processing applications. Impact of recent programming philosophies and techniques with respect to PL/1 examined. *Prerequisite:* 55.335 or permission of instructor.
- 55.436 COMPUTER OPERATING SYSTEMS MANAGEMENT (c 01.00)** What operating system can do.

* See description under "General Curriculum Information" in this publication.

How to communicate with the operating system to accomplish desired data processing goals. Course relates to a specific operating system. *Prerequisites:* 55.333 or 55.334 or 55.335 or permission of instructor.

55.437 COMPUTER LANGUAGES IN SIMULATION (c 01.00) Introduction to computer languages used in simulation. Theory of simulation, statistical techniques for handling data and simulation model building demonstrated with practical examples and computer programs. Students conduct simulation studies using SIMSCRIPT computer simulation language. *Prerequisite:* 55.432 or permission of computer systems applications program director.

55.438 COMPUTER PERIPHERAL DEVICES (c 01.00) Functional building blocks of computer peripheral devices examined. Distinction drawn between the device and the medium from which device gets its information. Channel principle, device controller, and multiplexer are discussed. Software related to input/output activities covered. Various specific I/O devices and methods examined including: magnetic recording, punchcard devices, line printers, direct access storage, disk, storage control, mass storage devices, drum, etc. *Prerequisites:* 55.331 and competence in programming.

55.440 OPERATION RESEARCH CONCEPTS (c 01.00) Scientific method, problem definition, statistical decision theory, model building, implementation and control of solutions, individual projects. *Prerequisites:* 69.300 and 41.101.

55.450 INFORMATION STORAGE AND RETRIEVAL (c 01.00) Introduction to technology of handling scientific technical and scholarly literature for purposes of information storage and retrieval. Impact of computer stressed as tool which has revolutionized the field. Application of ADP techniques to the library is considered. Production of computer-aided indices and catalogs surveyed. Designed for students interested in application of modern information technology to many branches of scholarship where it may relieve tedium of conventional bibliographic searching. *Prerequisites:* 55.310 and 55.333 or 55.335.

55.460 APPLIED SYSTEMS DESIGN (c 01.00) Provides basic background in fundamentals of systems analysis, design, implementation, and utilization. *Prerequisites:* 55.360 or permission of instructor.

55.461 HUMAN FACTORS IN SYSTEMS DESIGN (c 01.00) Impact of systems design and its requirements on human behavior and development in business organization. *Prerequisite:* 55.460.

55.471 FUNDAMENTALS OF TECHNOLOGY OF MANAGEMENT (c 01.00) Basic analysis of functions of manager who may become involved in dynamics of change brought about by advancing technology. Study of interface between administration and technology. *Prerequisite:* 55.310.

55.481 ENVIRONMENTAL MODELING (c 01.00) Presentation of systematic investigations of specific natural environments with emphasis on analysis of technological inputs and includes production of "straw" model system for demonstration of mechanics of ecosystemic management to provide maximum use of environmental potentials on Earth. *Prerequisite:* 41.111, one year natural science, or permission of instructor.

55.490 INDEPENDENT STUDY PROJECT IN TECHNOLOGY AND ADMINISTRATION (c 00.25 through 02.00)*

55.491 INTERNSHIP IN PROGRAMMING (c 01.00) Various projects. *Prerequisite:* permission of program director.

55.498 HONORS TUTORIAL IN TECHNOLOGY OF MANAGEMENT (c 01.00) *Prerequisite:* permission of program director.

55.499 HONORS SEMINAR IN TECHNOLOGY OF MANAGEMENT (c 01.00) *Prerequisite:* permission of program director.

Graduate and Advanced Undergraduate Courses

55.511 THE SYSTEMS APPROACH (s 03.00) Introduction to systems analysis approach to study and design of managerial and operational organization and process. Fundamental to all other courses in this general sequence, or for anyone who expects to be responsibly concerned with managerial, operational or control organizations and processes of business or government. Includes problem exercises to illustrate rigor of the discipline and nature and scope of its applications.

* See description under "General Curriculum Information" in this publication.

55.512 INTRODUCTION TO CYBERNETICS AND SYSTEMS SCIENCE (s 03.00) Introduction to abstractions of cybernetics. Operational aspects of human intellect translated into machine simulation and examined for validity of communication and control. Man-machine symbiosis studied as means to augment man's capability to solve complex problems. Stability of large and small systems through homeostatic control included. Mathematical explanations kept at minimum.

ADVANCED COURSES

55.513 CHANGE AND THE MANAGERIAL PROCESS (s 03.00) Effects of technological and scientific development on organizational, operations, and staff functions of public or private administrative establishment. Implications for manager and managerial unit of information and cybernetic revolutions, and modern technological instruments and methods for performance of societal and administrative functions. Reciprocal effects of managerial requirements on technological development. Includes general appreciation but not an intensive development of significance of research and development for the general manager or administrator. *Prerequisite:* 55.511.

55.514 OPERATIONS RESEARCH APPROACH (s 03.00) Concepts, applicability, limitations, and frontiers of operations research. Decision making, problem definition, model building, marginal analysis, utility. Provides material basic to further study of operations research. *Prerequisites:* 41.222 and 69.300 or 69.400.

55.530 REAL-TIME SYSTEMS (s 03.00) Large scale computer system organization and design. Detailed analysis and design of large business or government computer system application followed by technical design of appropriate hardware/software and system specification. Queuing, communications, cost-benefit analysis, equipment capabilities and system design problems of real-time environment stressed. Emphasis on thorough development of system application and implementation rather than on hardware engineering or component design. *Prerequisites:* 55.310. An ability to handle moderately advanced mathematical and statistical tools very desirable.

55.531 COMPUTER DESIGN AND COMPARATIVE SYSTEMS (s 03.00) Fundamentals of Boolean Algebra and logic design, design and functional operation of arithmetic, logic and control units. memory characteristics, analysis and comparison of organization of typical third generation small, medium, and large scale commercial computing systems. Non-engineering approach taken. *Prerequisite:* 55.530.

55.540 OPERATIONS RESEARCH IN MANAGEMENT (s 03.00) Overview of general field of operations research and its role in decision making process. Modeling techniques and applications of variety of prototype problems covered, including linear programming, inventory and queuing models, replacement and maintenance models, Markov chains, simulation and dynamic programming models. Mathematics employed limited to elementary algebra and statistics, stresses the quantitative approach. Not to be taken if OR is comprehensive field. *Prerequisite:* 69.300 or 69.400.

55.542 PROBABILITY AND STATISTICS FOR MANAGEMENT DECISIONS (s 03.00) Basic probability and statistics. Sampling, hypothesis testing, regression, analysis and correlation, analysis of variance, nonparametric tests. *Prerequisites:* 41.222 and 69.300 or 69.400.

55.550 SURVEY OF INFORMATION SCIENCE AND TECHNOLOGY (s 03.00) Introductory survey of scientific and technical communications field with emphasis upon modern mechanized methods. Information theory, documentation, reprography, computer-aided photocomposition among topics covered. Symbiotic relationship between publishing field and information storage and retrieval systems stressed as underlying philosophy of course. *Prerequisite:* for all other courses in scientific and technical information systems area. *Prerequisite:* 55.310 or equivalent experience.

55.560 SYSTEMS DESIGN FOR BUSINESS OPERATIONS (s 03.00) Opportunity to develop and defend specific management sciences techniques against both hypothetical and actual business operations and problem areas. Use of case studies, group discussions and projects, against current business operations, guidance in developing firm understanding of relationships and dependence upon interdisciplinary approaches to problem recognition, definition, development of alternatives and ultimate selection of optimum solution based on cost/effectiveness. *Prerequisite:* 55.530 and 55.511.

55.561 MANAGEMENT OF AUTOMATIC DATA PROCESSING SYSTEMS (s 03.00) Examination of unique problems, functions and requirements of data processing management. Planning, installation, operation and organization of computer facility examined. Executive interaction stressed, specifically in decision-making, planning and evaluation functions. Course content developed through lectures and reports. *Prerequisite:* 55.530.

55.562 MANAGEMENT OF INSTITUTIONAL RECORDS SYSTEMS: CREATION (s 03.00) Nature and functions of records and record systems, in relation to totality of organization and administrative process. Reviews kinds and respective functions of institutional paper and paperwork, but gives primary emphasis to development and installation of records management program. Physical facilities systems and equipment for storage of records and informational paper; reproduction process and equipment; mail; correspondence; and telecommunication. *Prerequisite:* administrative experience, or undergraduate or graduate course work in government, public administration, business administration or CTA programs.

55.563 THE MANAGEMENT OF INSTITUTIONAL RECORDS SYSTEMS: MAINTENANCE AND RETENTION (s 03.00) Principles, methods, and techniques of records management in maintenance and retention phases. Covers continuation of material encompassed in 55.562 and requires completion of that course as prerequisite.

55.570 MANAGEMENT OF RESEARCH AND ENGINEERING (s 03.00) Basic course on management of research and engineering organization. Discussion of full spectrum of elements in such an organization, utilization of resources, comparison of government and business, establishment of procedures and methodologies for effective and efficient operations. *Prerequisites:* permission of instructor.

55.571 TECHNOLOGICAL FORECASTING AND ASSESSMENT (s 03.00) Review of principal methodologies of technological forecasting involving establishment of long range goals definable in technical terms, and consequent preferred means of achieving them; usefulness and limitations from viewpoint of practitioner as well as manager. Relationship to planning, technological transfer and assessment. Case studies. *Prerequisites:* 55.411, 55.570, or permission of instructor.

55.580 ENVIRONMENTAL SYSTEMS ANALYSIS (s 03.00)** Multidisciplinary, integrative, ecological analysis of three environmental systems of earth; air, land, and water. Curriculum includes a-biotic and biotic factors of environment as each flows from its particular systemic niche. *Prerequisite:* 31.571.

55.580 COASTAL AND ESTUARINE ENVIRONMENTAL SURVEY (s 03.00)** Review of physical, chemical, and biotic interrelationships in these special ecological zones; basic problems in management of these areas with respect to political and economic overtones. *Prerequisite:* 31.571.

55.581 TECHNOLOGICAL SYSTEMS IN ENVIRONMENTAL MANAGEMENT (s 03.00) Technology of management of air, water and land systemic complexes with reference to present level of monitoring devices and programs on computerization-automation in environmental monitoring. (Laboratory) *Prerequisite:* 31.571.

55.581 TECHNOLOGICAL SYSTEMS AND ENGINEERING PRINCIPLES (s 03.00)** Description of kinds of technological problems, equipment, political issues, ecological imbalances, and biological consequences of marine exploitations such as ocean mining, ocean dumping, aquaculture, port and harbor construction, marine waste treatment facilities location, etc. Acquaints environmental management persons with issues faced by marine engineers.

55.582 ADMINISTRATIVE SYSTEMS IN ENVIRONMENTAL MANAGEMENT (s 03.00)** Governmental management of air, water and land systemic complexes with reference to control laws and regulatory statutes at federal, state and local levels. *Prerequisite:* 31.571.

55.582 ADMINISTRATIVE LAW: LAW OF THE SEA (s 03.00)** Principles of ocean law to inform managers of types of legal issues with which they might be confronted in this aspect of ocean affairs. *Prerequisite:* 55.580.

55.588 DIAL ACCESS SERIES IN ENVIRONMENTAL SYSTEMS MANAGEMENT These courses may be taken at student's convenience in Language Laboratory. Films and tapes available there. Study Guides obtained from the Environmental Systems Management office.

55.588 DIAL ACCESS READING COURSE: HOUSING PROBLEMS IN ENVIRONMENTAL SYSTEMS MANAGEMENT (s 03.00) Professional presentations on social, economic, and technological situation in housing management area and its environmental impact. (Study paper required.)

55.588 DIAL ACCESS READING COURSE: ECOLOGY OF COMPARATIVE BIOTIC SYSTEMS (s 03.00)

****** These courses are part of the series in environmental systems management. The courses in this series come in two sets at this time: (1) a general set of courses in total environmental systems management; and (2) that set designed as a specialty set directed specifically to the management of ocean affairs. Course titles and descriptions for both sets are listed above and further below in this numerical listing of courses of instruction.

Anatomy and physiology of biota and their relationships to natural and technological environments. (Portfolio development.)

55.588 DIAL ACCESS READING COURSE: PARASITIC DISEASE: SOCIO-ECONOMIC EFFECT ON DEVELOPING NATIONS (s 03.00) Analysis of parasitic organisms and effects of diseases they produce on human, natural, and technological environments. (Portfolio development.)

55.588 DIAL ACCESS READING COURSE: AIR POLLUTION PROBLEMS (s 03.00) Health effects on human and other biotic systems; laws; control measures (programmed learning examination).

55.588 DIAL ACCESS READING COURSE: MALNUTRITION-MENTAL RETARDATION-PUBLIC ADMINISTRATION (s 03.00) Economic, political, genetic, environmental issues fundamental to understanding of societal issues in relation to mental retardation. Professional speakers (study paper required).

55.588 DIAL ACCESS READING COURSE: PRACTICAL SCIENTIFIC AND TECHNICAL WRITING (s 03.00) Basic principles for preparation of all types of materials used in working world: speeches, progress reports, executive summaries, other programmed learning materials; various items prepared.

55.588 DIAL ACCESS READING COURSE: POLLUTION PROBLEMS IN ENVIRONMENTAL MANAGEMENT (s 03.00) General overview of issues fundamental to environmental problems of land, air, and water. Professional speakers (study paper required).

55.590 INDEPENDENT READING COURSE IN TECHNOLOGY AND ADMINISTRATION (s 01.00 through 06.00)*

INSTRUCTION BY RADIO

31.571 ECOLOGY AND THE HUMAN ENVIRONMENT (s 03.00) Broad overview of many environmental issues facing world communities today. Survey course relevant to the general environmental systems management program, and to the management of ocean affairs curriculum.

55.581 TECHNOLOGICAL SYSTEMS IN ENVIRONMENTAL MANAGEMENT (WATER RESOURCE RECOVERY) (s 03.00) Directed toward engineering technology currently in use for control of environmental pollutants in any given ecosystem. Syllabus varies dependent upon particular system under study. Students may repeat several times, provided topics not duplicated.

Graduate Courses

55.630 COMPUTER APPLICATIONS FOR PUBLIC MANAGERS (s 03.00) Examination of impact of computer on public administration functions. Some investigation into technical side of computer systems applications made, but principal thrust is in the direction of applications. Public's right to privacy and procedures to provide computer security to achieve this right are explored. Evaluation and selection of computer systems covered.

55.632 SIMULATION AND MODELING (s 03.00) Design, development and programming of mathematical models and simulations. Deterministic, stochastic and heuristic models, measurement and scientific method, data acquisition and field work. Related programming techniques. *Prerequisites:* one programming language, 55.530, and 69.300 or 69.400.

55.633 PROGRAMMING SYSTEMS AND LANGUAGE (s 03.00) Examination of basic attributes of major classes of programming languages and systems. Characteristics that describe basic differences between types of languages emphasized. Roles of various operating systems briefly examined; as well as problems of operating systems design, and implementation. *Prerequisites:* 55.333 or 55.334 or 55.335 and 55.530.

55.635 WORKSHOPS IN COMPUTER SYSTEMS (s 03.00) Subject matter coverage of current topics in applications. May be repeated for credit if course sub-title different: *Data Base Management Systems:* Provides specialized background in current state-of-the-art in generalized data base management systems. Emphasizes technical characteristics to provide basis for evaluation of suitability of available representative systems (proprietary or user owned) to satisfy DBMS requirements of specific applications such as management information systems (MIS) or military command and control (C & C). Approach applies not only to the computer systems application field but is equally applicable to the management information systems field. *Distributed Systems and Minicomputers:* Extensive study of current capabilities and limitations of minicomputers, microprocessors, and microcomputers, including available software and peripheral equipment, and use in implementing distributed systems. Several existing distributed systems in use in data communications, banking,

*See description under "General Curriculum Information" in this publication.

and retail businesses presented and examined in detail. *Evaluation and Selection*: Examines nature of processes that are currently used to select computer hardware and software systems. Students to develop body of knowledge and understanding from management point of view, about technical, economic, and operational aspects of selecting computer hardware and software systems. *Prerequisites*: 55.530 or equivalent and permission of instructor.

55.637 WORKSHOP IN OPERATING SYSTEMS (s 03.00) Operating system concepts necessary for management of automatic data processing installation. Includes job scheduling, program management, and data files. Utilities, compilers, special purpose languages, telecommunications, and software sources also discussed. *Prerequisites*: 55.633.

55.640 SYSTEMS ANALYSIS/OPERATIONS RESEARCH IN PUBLIC ADMINISTRATION (s 03.00) Introduction to systems analysis/operations research. Solution of decision making problems at operations and policy making levels of international, national, and local governing bodies, using scientific method. Evaluation of particular solutions. Not to be taken as a field course in operations research master's comprehensive field.

55.641 METHODS OF OPERATIONS RESEARCH I (s 03.00) Mathematical techniques in operations research, part I. Linear and non-linear programming, game theory, inventory theory. *Prerequisites*: 55.514 and 55.542.

55.642 METHODS OF OPERATIONS RESEARCH II (s 03.00) Mathematical techniques of operations research, part II. Role of selected probability distributions in OR, queuing theory and applications, Markov processes, dynamic programming and extensions and integrating Markov processes, selected problems in simulation. *Prerequisite or parallel*: 55.641.

55.645 WORKSHOPS IN OPERATIONS RESEARCH (s 03.00) Special projects and studies. May be repeated for credit if no duplication. *Practicum*: Individual and/or group projects involving actual problems. Opportunity for students to practice operations research either on problems of own choosing or problems presented to them by instructor. Guided experience in problem formulation, data collection, model building as appropriate, and in making final recommendations. *Prerequisites*: permission of the program director or the instructor. *Advanced Methodology*: Designed to (a) cover topics not taken up in 55.642, (b) go into selected topics already covered more intensively, and (c) give students opportunity to select one or two topics for special treatment. *Prerequisite or parallel*: 55.642.

55.646 COST-BENEFIT ANALYSIS (s 03.00) Examination of techniques used to evaluate non-market oriented goods and services. *Prerequisites*: 55.542 and 41.222.

55.647 PROPOSAL WRITING AND CONTRACT MANAGEMENT: AN OPERATIONS RESEARCH APPROACH (s 03.00) Applications of operations research methodology to problems of preparation of requests for proposals, writing of proposals, and management of resulting contracts. Problem definition from point of view of granting agency and of proposal writer and contractor and implications thereof. Institutional and other constraints, quantitative and nonquantitative. Establishment of criteria for performance evaluation, including methods of measurement. *Prerequisite*: permission of program director or instructor.

55.650 NATURAL LANGUAGE DATA PROCESSING (s 03.00) Basic knowledge of computational linguistics, useful in any field in which computer is called upon to interpret or to analyze natural language such as indexing and classifying documents, extracting and abstracting, analyzing stylistic variations, machine translation and automating concordances. Non-specialist oriented introduction to field for information scientists, computer programmers, librarians and others interested in learning scope of computer applications in alleviating some tedious and repetitive tasks of scholarly research. Powerful tool for modern linguistics. *Prerequisite*: 55.550 or equivalent experience.

55.653 CONCEPT OF ABSTRACTING AND INDEXING (s 03.00) Impact of automatic data processing and mechanized methods upon processing and dissemination of information, emphasizes mainly intellectual functions to which this information subjected before and after machine intervention. "Arts" of abstracting and indexing. Analyzes technical writing, annotating, indicative and informative abstracting, classification methods including the Universal Decimal Classification and faceted classification, word indexing in- and out-of-context, vocabulary control and thesaurus-building, links and roles, citation indexing and relevance/recall ratios. Students must abstract and index limited number of documents in own fields of interest. *Prerequisite*: 55.550 or equivalent experience.

55.654 WORKSHOPS IN TECHNICAL INFORMATION HANDLING (s 03.00) As warranted by current interest, faculty availability and composition of the student body, special topics covered. Examples

are chemical notation systems, specialized information needs of various disciplines and professions (e.g. law, medicine, business administration, etc.), and integrated information networks. Students may repeat course provided identical topics not duplicated. *Prerequisite:* 55.550 or permission of instructor.

55.656 PUBLICATION TECHNIQUES (s 03.00) Careful analysis of primary journal publication with emphasis on economic factors. Computer-aided photocomposition technology, emphasis on machines such as Photon, Videocomp and Linotron. Mechanized processing of primary publications, abstracts and indexes as part of integrated system in which scientific and technical publications are part-and-parcel of information storage and retrieval systems. *Prerequisite:* 55.550 or permission of instructor.

55.660 MANAGEMENT INFORMATION AND REPORTING SYSTEMS (s 03.00) Provides understanding of complexity of integrated information system and its components. Covers system design, development, application, utilization and evaluation. Various philosophies concerning manner and degree of depth and breadth of integrated management information system approach reviewed. Advanced management techniques (e.g., real-time systems, time sharing, file management systems, models, simulations, discussed in terms of applicability to management information and reporting systems. *Prerequisites:* 55.560.

55.661 TELECOMMUNICATIONS AND MANAGEMENT INFORMATION SYSTEMS (s 03.00) Develop understanding and perspective in the relationship of data communications and management information systems. To determine current state-of-the-art and probable future developments in data communication systems. Familiarize student with literature in the field. *Prerequisites:* 55.530 or equivalent and permission of instructor.

55.665 WORKSHOP IN MANAGEMENT INFORMATION SYSTEMS (s 03.00) Advanced management information systems applications with emphasis on special projects. *Prerequisite:* 55.660, and permission of instructor.

55.670 THE POLITICS AND ECONOMICS OF RESEARCH AND DEVELOPMENT (s 03.00) Magnitude, characteristics, and politico-economic significance of the R&D economy of U.S. and, comparatively, of other countries. Structure and nature of U.S. research industry. Government-business defense economy. Governmental non-military research. Business and industrial research. Trends and forecasts. National resources allocation, and other political and economic problems. *Prerequisite:* permission of instructor.

55.671 R & D IN THE TOTAL ORGANIZATION (s 03.00) Criteria for top management; decisions; (a) capabilities of scientific, technological and social science research; (b) utilization for needs of the specific organization; (c) definition of R&D requirements, in-house and/or external implementation, determination of budget; (d) evaluation of success and contribution to organizational objectives; (e) conversion of R&D results into governmental or business applications, products, or processes. *Prerequisite:* 55.570.

55.672 SCIENTIFIC AND ENGINEERING MANPOWER (s 03.00) Study in-depth of scientific and engineering manpower stressing role of individual in R&D environment and his interface with total resources of which he is a part. Impact of innovative forces at work. For advanced graduate students. *Prerequisites:* 55.570 and at least one other of above R&D courses.

55.673 PLANNING AND CONTROL OF RESEARCH AND DEVELOPMENT OPERATIONS (s 03.00) Study in-depth of role of today's research and development manager. Review of operational policies and goals. Forecasting, planning and programming techniques, analysis methodology. Exercise of "value judgments." Intended for advanced graduate student. *Prerequisites:* 55.570 and at least one other of above R&D courses.

55.680 ENVIRONMENTAL SYSTEMS ANALYSIS OF TOXIC AND HAZARDOUS MATERIALS (s 03.00)** Examines and analyzes past and present bio-political decisions in the context of specific resource impact and policy impact. Bio-political resource management decisions with indirect and direct wildlife implications as related to toxic substances and hazardous materials considered. Both actual and hypothetical decision processes scrutinized in terms of predictability and consequence.

55.681 TECHNOLOGICAL SYSTEMS MANAGEMENT OF TOXIC AND HAZARDOUS MATERIALS

** These courses are part of the series in environmental systems management. The courses in this series come in two sets at this time: (1) a general set of courses in total environmental systems management; and (2) that set designed as a specialty set directed specifically to the management of ocean affairs. Course titles and descriptions for both sets are listed above and beginning at 55.580 in this numerical listing of courses of instruction.

(s 03.00)** Reviews pesticide metabolism from types of reactions they undergo; degradation by compound class; effects of ultra violet and sunlight on compounds and general differences and similarities between metabolism in plants and animals.

55.682 ADMINISTRATIVE SYSTEMS MANAGEMENT OF TOXIC AND HAZARDOUS MATERIALS (s 03.00)** Describes (1) values and hazards of agricultural chemicals as contribute to our supplies of food and fiber; (2) integrated crop management discussed and emphasis placed on examination of turf management as largely untouched major opportunity for enhancing character of the national environment; (3) national evaluation of chemicals used in home and gardens made along with those involved in production of twenty major agricultural commodities. Statutory regulations and label claims in interstate commerce, laws and institutional mechanisms related to agricultural chemical used covered. *Prerequisite:* 55.580.

55.683 POLLUTION ABATEMENT POTENTIALS (s 03.00)** In-depth study of three major contributors to environmental systematic pollution: agriculture, industry, and municipal wastes, with emphasis on re-routes and re-cycling. (Laboratory). *Prerequisite:* 55.582.

55.683 POLLUTION ABATEMENT POTENTIALS FOR THE MANAGEMENT OF OCEAN AFFAIRS (s 03.00)** Directed at waste treatment practices, recycling during in-plant productions; by-product recovery; and materials balance in operating procedures in major industries as they attempt to meet statutory regulations under the clean air and water pollution control acts. *Prerequisite:* 55.582.

55.683 POLLUTION ABATEMENT POTENTIALS FOR THE MANAGEMENT OF TOXIC AND HAZARDOUS MATERIALS (s 03.00)** Potential within natural environment to resist build-up of toxic materials; examination of characteristics of aquatic ecosystems; nutrient and energy flow patterns; biomass relationships; requirements of organism and how all these relate to foreign chemicals found in American waterways. *Prerequisite:* 55.680.

55.684 CONSERVATION IN ENVIRONMENTAL SYSTEMS MANAGEMENT (s 03.00)** Preservation of natural ecosystemic balance in limnological, marine and terrestrial environments through public administration at federal, state and local levels; through public education and through monitoring systems such as tagging of biotic species; radiation devices; weather regulation; etc. *Prerequisite:* three courses in environmental systems management.

55.684 CONSERVATION IN OCEAN AFFAIRS MANAGEMENT (s 03.00)** Conservation of species, including endangered ones, resource recovery and materials balance as these items relate to ocean management. *Prerequisite:* three courses in environmental systems management.

55.684 CONSERVATION AND TOXIC MATERIALS MANAGEMENT (s 03.00) Survey impact of use of chemicals on outdoor recreation areas and their impact upon natural environment, both aquatic and terrestrial. Attention given to studies related to economic impact of outdoor recreation in our nation and how this relates to pollution potentials it creates. Social and psychological impact of natural environment of man and how this relates to pollution discussed. *Prerequisites:* three courses in environmental systems management.

55.685 WORKSHOP IN ENVIRONMENTAL SYSTEMS MANAGEMENT (s 03.00)** May be taken more than once. As warranted by current interest, faculty availability, and composition of student body. Focus on individual environmental problems and may involve field investigations. *Prerequisite:* two courses in environmental systems management.

55.685 WORKSHOP IN OCEAN AFFAIRS (s 03.00)** Topics variable and dependent upon student interests as these relate to contemporary issues. Examples: membrane filtration modeling techniques, cost-benefit analysis, wetlands and remote sensing techniques, environmental impact and assessment techniques, and others. *Prerequisite:* two courses in environmental systems management.

55.685 WORKSHOP IN TOXIC AND HAZARDOUS MATERIALS (s 03.00) Analyses of various parameters which influence hazard of pesticides to wildlife. Each parameter given an in-depth analysis as relates to total hazard problem. Influence of each parameter of hazard from seashore to mature forest discussed. Field trip part of course. Research paper required. May be taken more than once as parameters vary. *Prerequisites:* two courses in environmental systems management.

** These courses are part of the series in environmental systems management. The courses in this series come in two sets at this time: (1) a general set of courses in total environmental systems management; and (2) that set designed as a speciality set directed specifically to the management of ocean affairs. Course titles and descriptions for both sets are listed above and beginning at 55.580 in this numerical listing of courses of instruction.

55.690 INDEPENDENT STUDY PROJECT IN TECHNOLOGY AND ADMINISTRATION (s 01.00 through 06.00)*

55.696 SELECTED TOPICS (NON-RECURRING) (s 03.00)*

55.730 SEMINAR IN COMPUTER SYSTEMS APPLICATIONS (s 03.00) *Prerequisite:* permission of program director.

55.740 SEMINAR IN OPERATIONS RESEARCH (s 03.00 through 06.00) *Prerequisite:* permission of program director.

55.750 SEMINAR IN SCIENTIFIC AND TECHNICAL INFORMATION SYSTEMS (s 03.00) *Prerequisite:* permission of program director.

55.760 SEMINARS IN MANAGEMENT INFORMATION SYSTEMS (s 03.00) *Prerequisite:* permission of program director.

55.770 SEMINAR IN RESEARCH AND DEVELOPMENT MANAGEMENT (MASTER'S) (s 03.00) For course content, see 55.673. Offered for students whose program requires seminar in lieu of a thesis for master's degree. *Prerequisite:* 55.570 and at least one other of above R & D courses, and permission of program director.

55.775 SEMINAR IN RESEARCH AND DEVELOPMENT MANAGEMENT (DOCTORAL) (s 03.00) Critical review of literature pertinent to modern R & D management, intended to develop within R & D executive a clear grasp of applicability of current knowledge of problem solving. Study in-depth of today's research and development manager. Intended for very advanced graduate student. *Prerequisite:* permission of program director.

55.780 SEMINAR IN ENVIRONMENTAL SYSTEMS MANAGEMENT (s 03.00)** Specific industries; geographic locations and interferent materials analyzed in-depth in relation to their particular production-pollution contribution. Special topics change as warranted by current interests, faculty availability and composition of student body. *Prerequisite:* permission of program director and four courses in environmental systems management.

55.780 SEMINAR IN MANAGEMENT OF OCEAN AFFAIRS (s 03.00)** Professional presentations of topics of current interest by leaders in the field, field inspection trip to area of class choice; preparation for comprehensive examination and four courses in environmental systems management.

55.780 SEMINAR IN MANAGEMENT OF TOXICS (s 03.00)** Discussions focus on new and innovative research findings in field. *Prerequisites:* four courses in toxic materials management.

55.797 MASTER'S THESIS SEMINAR (s 01.00 through 06.00)

55.799 DOCTORAL DISSERTATION SEMINAR (s 01.00 through 12.00)

* See description under "General Curriculum Information" in this publication.

** These courses are part of the series in environmental systems management. The courses in this series come in two sets at this time: (1) a general set of courses in total environmental systems management; and (2) that set designed as a speciality set directed specifically to the management of ocean affairs. Course titles and descriptions for both sets are listed above and beginning at 55.580 in this numerical listing of courses of instruction.

Special University Programs for Study and Research

Cooperative Education Program

DIRECTOR Eva Klein Kanter

FACULTY Full-time University faculty from several departments act as coordinators for the Cooperative Education Program and supervise co-op student work experiences.

Notice The following information on the Cooperative Education Program is revised, as the program expands and develops. Up-to-date information on all aspects of the program can be obtained from the Office of Cooperative Education, The American University, Washington, D.C. 20016.

Experiential Learning in an Academic Program

DEGREES CONFERRED The Cooperative Education Program does not award its own degrees; students enrolled in any of the degree programs of the College of Arts and Sciences, the College of Public Affairs, the School of Business Administration, and the College of Continuing Education may include Cooperative Education in their degree programs.

THE PROGRAM AND PHILOSOPHY In the interest of broadening undergraduate liberal arts and graduate professional education to include preparation for post-graduate needs, the Cooperative Education Program provides students with opportunities to gain field experience through jobs related to their general educational and specific career goals. Participants include several periods of paid full-time work in their course of study, earning degree credit for supervised on-the-job learning. Co-op jobs are usually pre-professional or mid-level positions; they may be with private business or industry, local and federal government agencies or social service organizations. An experiential education program helps prepare students for making career choices, allowing them to test their acquired skills and academic learning in the "real-world" environment, while also providing entirely new learning opportunities. A co-op job provides exposure to both a new context for liberal arts education and to career possibilities perhaps not previously considered by students. Regardless of which emphasis they place on their field experience, co-op students will enter the job market with the kind of experience, self-confidence, references and knowledge that can mean a better career and future.

COOPERATIVE EDUCATION PROGRAM AND THE FEDERAL COLLEGE WORK-STUDY PROGRAM Students who are eligible for federal financial aid on the basis of the PCS or SFS may be awarded Federal College Work-Study funds under the Cooperative Education Program. These funds are used to supplement the salaries for Co-op jobs with non-profit, public interest organizations. Additional information is available from the Office of Admissions, Financial Aid and Veterans Affairs, Programs and Services or the Cooperative Education Office.

ADMISSION TO THE PROGRAM The program is open to full-time degree students in the College of Public Affairs, the College of Arts and Sciences, the School of Business Administration, and the College of Continuing Education. Undergraduate and graduate students in good academic standing and who obtain the approval of their academic advisors may participate, while freshmen and first semester transfer students cannot be placed.

PLACEMENT PROCEDURES Students must attend a one-hour information/orientation session. Then they complete an application, including clearance signatures (CAS students must complete an academic plan sheet), fill out a resumé form and are screened by the director and faculty coordinators. They are then interviewed by appropriate employers and, if selected by one, are registered. It is important to note that students cannot be guaranteed placement, nor do applications commit them to accepting any co-op job. Once placed, however, they must complete the entire work period agreed to at the time of registration, unless released from the assignment by the director and faculty coordinator.

THE CO-OP CALENDAR The Cooperative Education Program is based on a twelve-month year; the usual six-month placement terms run from January 1 through June 30 and July 1 through December 31. By utilizing all summer sessions, this format allows students to complete their education within the normal four-year period or to extend that period if they so desire.

Enrollment in Cooperative Education

ACADEMIC COURSE LOAD All jobs must be approved for credit by the faculty coordinators for cooperative education. Undergraduates may earn a *total* of four course units for their work experience (up to two course units for each job). For graduate students, the number of semester hours to be earned is determined by the faculty advisor, as the field experience must be specifically related to the student's academic work. Evaluation of the field experience is performed by the student and faculty coordinator; special co-op seminars may be required. Students wishing to take courses in addition to a co-op placement may do so only with the permission of the director. However, a two-course co-op placement *does* constitute full-time enrollment.

REGISTRATION PROCEDURES Registration for Cooperative Education takes place only through the program office, and is not valid unless a job placement has been approved and registration form signed by the director.

PROGRAM COURSES As this is a University-wide academic program, students register under special *non-departmental* course numbers:

00.391 Cooperative Education Field Experience (undergraduate level)

00.691 Cooperative Education Field Experience (graduate level)

Note: Credit sections of co-op courses are charged at the standard tuition rate. Non-credit sections of these special courses are charged the special fee of \$55 per semester. Specific course values and section numbers are determined by the faculty coordinator and the director.

Interdisciplinary Studies

COORDINATOR Phillip H. Scribner

Chairman, Committee on Interdisciplinary Studies Robert P. Fox

Notice The following material on interdisciplinary programs and courses at The American University is under constant revision with new listings added periodically. Up-to-date material on all interdisciplinary activities can be acquired from the Office of Interdisciplinary Studies, The American University, Washington, D.C., 20016.

Undergraduate Degree Programs

Bachelor of Arts, Bachelor of Science

COMPOSITION AND READING REQUIREMENT See "Undergraduate Degree Requirements" in this publication.

LANGUAGE REQUIREMENT See undergraduate degree section of the appropriate college or school.

INDIVIDUALLY DESIGNED MAJORS IN INTERDISCIPLINARY STUDIES

This program is designed for students who wish to construct their own major program of study leading to the B.A. or B.S. Individual interdisciplinary programs are formulated by students in accordance with their needs, capacities, and interests. The initiative in formulating an interdisciplinary major is left to the student. The student has the responsibility to determine the central concept around which the program is constructed; to formulate in writing a list of all courses, major, related, and tool, which are to serve as major requirements for the program; and to secure the advice and program approval of three full-time faculty members, at least one from each of the two or more disciplines involved in the interdisciplinary field, who will assist in setting up the program and who will act as faculty advisors.

In formulating an interdisciplinary major program there are certain established guidelines which *must* be followed.

CENTRAL CONCEPT AND AREA OF CONCENTRATION This is perhaps the most important aspect of any individually constructed interdisciplinary major program. Every program must comprehend an academically sound area of concentration defined by a central concept. The area of concentration may not be the focus of any current degree program offered by The American University and the central concept must be interdisciplinary in character. A random collection of interesting courses taken from several departments does not constitute an acceptable interdisciplinary program. Each program should be designed to give the student the fundamental skills and background knowledge relevant to the specific interdisciplinary area.

COURSE REQUIREMENTS All programs must include at least fourteen courses, twelve related courses from appropriate departments and two special courses.

The twelve courses must be selected according to their relevance to the proposed interdisciplinary theme. A minimum of nine of these courses must be upper level (xx.300 or above), and it is usually advisable to include at least two xx.500 level courses.

The two special courses for the major are usually independent study projects (xx.490) under the direction of the major advisor and constructed to pull the various aspects of the interdisciplinary program together in one study project. With the advisor's approval, the student may substitute an internship course (xx.491) under the direction of the major advisor, or (when available) a senior seminar for one, or both, of the special courses. The major advisor may also permit the student to substitute a xx.500 level seminar for one of the two special courses, when he believes it would serve to integrate the different parts of the program as well.

All University requirements for the bachelor's degree must be fulfilled. If the student completes more than sixteen courses in the major program, the student will earn a B.S. degree instead of a B.A. The major will be entitled "Interdisciplinary Studies in (*title of program*)," in which a name designating the interdisciplinary field is inserted.

MAJOR ADVISOR AND TWO SPONSORS All individually designed interdisciplinary major programs must have the approval of three full-time University faculty members. The student is expected to secure the approval of one major advisor and the endorsement of two faculty sponsors.

In becoming the major advisor, the faculty member agrees to take the responsibility for defending the interdisciplinary major program to the Committee on Interdisciplinary Studies and to advise the student actively for the rest of the student's undergraduate career. The two faculty sponsors, by endorsing the program, agree to assist the major advisor when he needs help outside his area of competence. The major advisor, however, assumes the primary responsibility for the academic quality of the interdisciplinary major program.

ADMISSION TO THE MAJOR No student with less than a C (2.00 on a 4.00 scale) average (that required by the University) will be admitted to an interdisciplinary major program.

All arrangements for the establishment of interdisciplinary majors should be made no later than the first semester of the junior year, except by special petition to the Interdisciplinary Studies Committee, and no earlier than the second semester of the freshman year.

Ordinarily, courses which a student has already taken and which clearly form part of the proposed interdisciplinary major field may be counted in accordance with the following schedule as satisfying the minimum course requirements for interdisciplinary majors. Any student applying for a major in the second semester of her or his sophomore year or earlier is allowed to count a maximum of two previously taken courses as part of the major. A first semester junior is allowed to count four. A second semester junior can count no more than six, and a first semester senior can count no more than eight previously taken courses as part of the major. Courses taken during the semester which a student applies for the major would not be counted in these maximums.

Students interested in formulating an interdisciplinary major program must make formal application to the University Senate Interdisciplinary Studies Committee. Application forms may be obtained through the Office of Interdisciplinary Studies. Once filled out and approved, the completed application will serve as the official record of the student's interdisciplinary major program.

FORMALLY STRUCTURED INTERDISCIPLINARY MAJORS

Some interdisciplinary degree programs are formally structured and carry their own specific degree major names. Among these are the majors in Law, Public Policy, and Society and in Mass Communication and Society. These two majors are described in detail below.

Other formally structured interdisciplinary majors are administered by other academic units in the University. These include (consult the specified academic units for details):

American Studies (American Studies Program, College of Arts and Sciences).

Distributed Science (Interdepartmental Science Program, College of Arts and Sciences).

Environmental Studies, as a second major only (Environmental Studies Program, College of Arts and Sciences).

Interdisciplinary Communication opportunities (Department of Communication, College of Arts and Sciences).

Foreign Language and Communication Media (Departments of Language and Foreign Studies and Communication, College of Arts and Sciences).

Jewish Studies (Jewish Studies Program, College of Arts and Sciences).

Medical Technology (Department of Biology, College of Arts and Sciences).

Urban Affairs (School of Government and Public Administration, College of Public Affairs).

MAJOR IN LAW, PUBLIC POLICY, AND SOCIETY

The student may take the Law, Public Policy, and Society major in one of two tracks: Communication, Legal Institutions, Economics, and Government (CLEG) or Law and Society.

ADMISSION TO THE MAJOR All University admission requirements must be fulfilled. No undergraduate student with less than a C (2.00 on a 4.00 scale) average may declare the major.

All arrangements for the major normally should be made no later than the first semester of the junior year. These arrangements should be made in consultation with, and require the approval of one of the advisors listed below for the appropriate track.

COMMUNICATION, LEGAL INSTITUTIONS, ECONOMICS, AND GOVERNMENT TRACK

Course work in communication, legal institutions, economics, and government is designed to provide the student with breadth of background necessary to participate effectively in decision-making for public affairs. Drawing on the specialized methods and perspectives of each of these fields, the program emphasizes the practical training necessary to deal with social problems and public issues.

The communication courses include the study of the communication process as it occurs in the dyadic, small group, public, and organizational contexts. The emphasis in these courses is on the development of verbal and analytical skills used in persuasive, political, and interpersonal forms of communication. Additionally, the student may become acquainted with the frontiers of knowledge in the discipline of communication through a study of the most recent advances in communication research.

While some courses in law focus on legal reasoning as a discipline, others approach law as a system of institutions shaped by economic, political, and social forces outside them.

The economics courses are designed to acquaint students with the traditional analytical tools used by economists as well as to try to resolve social problems. Particular attention is focused on the problems of unemployment, inflation, consequences of economic growth, and poverty and its causes. Students are encouraged to approach economic issues in the context of broader political and social factors such as technological change, social classes, wealth, and power. The courses are designed to help students understand the functioning of the American economy as system so that, whether the student wishes to reinforce it or change it, the student will have a fundamental knowledge of how it works.

The government courses emphasize the political nature and process of decision-making at the national, state, and local levels of the American political system. The courses are designed to contribute to an understanding of government and public affairs as an aspect of a broadly cultural education. They prepare the student for an enlightened role in American national and community affairs, and for entrance upon a career in public affairs at a junior professional level.

COURSE REQUIREMENTS FOR THE BACHELOR OF ARTS

Core Courses To total eight: 17.201 Introduction to Communication; 73.101 Introduction to the Administration of Justice I; 19.100 Introduction to Economics; 53.150 American Government and Politics; either 53.341 Civil Rights and Liberties or 53.323 Law and the Political System; 75.440 Reasoning in the Legal Process; 75.490 Independent Study Project.

Related Courses Seven. These must be chosen from the approved CLEG course listing. Four of the seven must be at the xx.300 level or above. A minimum of three courses must be selected from each CLEG area. Core courses may be counted among the minimal three courses from each area. A listing of approved CLEG courses may be acquired from one of the CLEG advisors listed below.

COURSE REQUIREMENTS FOR THE BACHELOR OF SCIENCE IN CLEG The B.S. degree will be granted if the student completes more than sixteen courses from the approved CLEG listing. The eight required CLEG core courses must be included for the major. Eight of the courses for the major must be at the upper level, xx.300 or above. A minimum of four courses must be selected from each CLEG area. Core courses may be counted among the minimal four courses from each area.

COMBINED UNDERGRADUATE-GRADUATE DEGREE OPTIONS Combined degree programs may be developed as B.A. or B.S. in CLEG with an M.A. in Communication, Economics, or Government, or an M.S. in Administration of Justice, or an M.P.A. in Public Administration.

The combined degrees require that the student first meet all requirements for either the B.A. or B.S. in CLEG. Additionally, the student must meet all requirements for graduate admission in one of the CLEG areas. Upon admission to graduate standing in one of the CLEG departments or schools, the student will then be assigned an advisor from that academic unit and must meet the requirements for its master's degree.

CLEG ADVISORS Jerry A. Hendrix (Department of Communication), Jeffrey H. Reiman (Center for the Administration of Justice), James H. Weaver (Department of Economics), A. Lee Fritschler (School of Government and Public Administration).

LAW AND SOCIETY TRACK

A student choosing the interdisciplinary track in Law and Society will obtain a strong liberal education. Students are encouraged to develop an integrated program of study drawing from a broad range of current offerings in both the College of Public Affairs and the College of Arts and Sciences. The program is designed to help prepare students seeking careers of further education in law and law-related areas, as well as in the social sciences and humanities. There can be no doubt that in the last few decades law has emerged as a prime instrument of social control, social protest, and social change. The study of the interaction between the law and society is of central interest to students of the social sciences and the humanities as well as to students of public administration and public policy.

COURSE REQUIREMENTS FOR THE BACHELOR OF ARTS

Core Courses To total six: 73.101 Introduction to the Administration of Justice I; 73.220 Criminal Justice and the Constitution; 19.100 Introduction to Economics; either 53.323 Law and the Political System or 53.341 Civil Rights and Liberties; 65.415 Law and the Social Order; 75.440 Reasoning in the Legal Process.

Related Courses Nine. Students must select, in consultation with their program director, an additional nine courses dealing in part with some aspect of law and its relationship to society. Students must choose these courses from the following law and society areas: law in the city; economics and law; criminal justice; legal systems—normative; comparative legal systems; theoretical foundations of law; law and public policy. A complete listing of approved law and society courses for each area can be obtained from the program advisor or the Office of Interdisciplinary Studies.

Students are encouraged to select courses in sequences that will result in more than a superficial knowledge in the various disciplines in the program. Towards this end each student will have a

program advisor designated in the appropriate academic unit (Center for the Administration of Justice, School of Government and Public Administration, the departments of Economics and Sociology). Students are further advised to select some of their elective courses from related areas such as history, anthropology, and philosophy.

Project Courses Two: 75.490 Independent Study Project; 75.491 Internship or a xx.500 level substitute chosen from the approved listing of Law and Society courses.

PROGRAM ADVISOR Jeffrey H. Reiman (Center for the Administration of Justice).

MAJOR IN MASS COMMUNICATION AND SOCIETY

The Bachelor of Arts in Mass Communication and Society offers the student applicable skills in communication as well as an opportunity to comprehend the social processes and dynamics of our modern society. The wide scope and intensive training available in this interdisciplinary program consists of three major elements: (1) *scholarship*: study in sociology with emphasis on social change, social processes, and dynamics; (2) *skill development*: intensive development of the skills of observation, interviewing, reporting, investigation, expository writing, research, and other professional journalism skills; (3) *production*: special workshops and in-service projects where the student reports, writes, edits, and distributes information on issues of social change through one or more of the media of mass communication.

ADMISSION TO THE MAJOR Students in the Mass Communication and Society major must meet minimum standards of the departments of Sociology and Communication. No grades of D (1.00 on a 4.00 scale) in sociology or communication are accepted. Students must have an average of 2.50 in order to be admitted to the major at the end of the sophomore year. A 2.50 average is required for graduation.

COURSE REQUIREMENTS

Scholarship Courses To total nine: 17.100 Introduction to Mass Media or 17.201 Introduction to Communication; 65.200 Introduction to Sociology; 65.345 American Society or 65.346 Comparative Social Systems; 65.441 Introduction to Social Stratification or 65.442 Political Sociology or 65.445 Contemporary Communities; 65.360 Introduction to Social Change or 65.593 Collective Behavior; 65.592 Social Aspects of Mass Communication or 65.594 Public Opinion; one other sociology course; two further communication courses as approved by the program advisor.

Skill Development Courses To total seven: 17.101 Writing for Mass Communication; 65.420 Introduction to Social Research Methods I; 65.421 Introduction to Social Research Methods II; four courses in one of the following communication skill concentrations: (a) *print journalism*: 17.320 Reporting I; 17.322 Editorial Policies and Methods I; 17.524 Reporting II; 17.520 Editorial Policies and Methods II or 17.532 Publication Layout and Design; 17.325 Feature Article Writing or an independent reporting project or 17.343 Photography; 17.491 Internship; (b) *broadcast journalism*: 17.320 Reporting I; 17.333 Fundamentals of TV and VTR; 17.385 Broadcast Journalism I; 17.528 Broadcast Journalism II; 17.383 Radio Production and Programming or 17.583 Film Production or 17.584 Television Production and Direction I; 17.491 Internship; (c) *film production*: 17.583 Film Production and Direction; 17.589 Seminar in Broadcasting and Film; (d) *broadcast production*: 17.333 Fundamentals of TV and VTR; 17.383 Radio Production and Programming; 17.384 TV Studio Operations; 17.581 Broadcasting in Education; 17.584 Television Production and Direction I; 17.585 Television Production and Direction II.

PROGRAM ADVISORS Jack Orwant (Department of Communication), Muriel Cantor (Department of Sociology).

Graduate Degree Programs

Candidates for graduate degrees in all academic units must meet the requirements set forth in the University Minimum Standards for Graduate Studies. The requirements appearing below are those of the Interdisciplinary Studies program and do not relieve degree candidates from compliance with the minimum standards.

Master of Arts, Master of Science

INDIVIDUALLY DESIGNED MAJORS IN INTERDISCIPLINARY STUDIES

The individually designed interdisciplinary master program allows graduate students an opportunity to design their own M.A. or M.S. program built around a central theme that cuts across various

disciplines. Graduate students interested in formulating their own interdisciplinary master program must follow the guidelines set out below.

CENTRAL CONCEPT An interdisciplinary master program must comprehend an academically sound area of study defined by a central concept. The area of study must not duplicate the program of any master's degree currently offered by the University, and the central concept which defines the interdisciplinary program must be explained in a written statement attached to the application for approval of the master's program.

COURSE REQUIREMENTS The University requires a minimum of thirty semester hours of graduate work for the master's degree, including six hours of research credit, either in writing a thesis or in completing special research oriented seminars. At least twenty-four of these hours, including the thesis or research sequence, must be completed in residence, and the courses, which may be offered by several different departments, should be selected to support the interdisciplinary area of study.

EXAMINATION REQUIREMENT The subject and scope of the comprehensive examination(s) must be determined by the student and his or her advisors at the time of initial approval of the interdisciplinary field and a statement detailing the provisions for the examination (who will draw it up, areas covered, who will evaluate it, etc.) must be submitted with the application to the Office of Interdisciplinary Studies. (Unless otherwise indicated, the faculty who approve the program take responsibility for drawing up, administering, and evaluating the comprehensive examination(s).)

THESIS AND NON-THESIS OPTION The research requirement (six hours of graduate credit) may be satisfied either by writing a thesis or by completing two research oriented seminars at the xx.600 or xx.700 levels with a grade of B or better. The application must specify which option has been chosen, and indicate which courses will be taken (on a non-thesis option), or the subject of the thesis and the members of the thesis committee (on the thesis option).

PROGRAM ADVISORS All programs must have the approval of three full-time faculty members, at least one from each of the two or more disciplines which may be involved in the interdisciplinary field. The responsibility for securing the advice of the three faculty members is left with the student. The student should select one of the faculty advisors as the primary advisor and the primary advisor must be from the admitting school (or department if the student is a College of Arts and Sciences student).

ADMISSION TO THE MAJOR Graduate students interested in establishing an individually constructed interdisciplinary master program must first be admitted to a school or college. (Admission to the College of Arts and Sciences requires admission to a department.) In applying for this admission to a school or college, the prospective graduate student may alert the faculty and teaching units to his or her interdisciplinary goals. In this manner, the student unofficially explores the possibilities of obtaining faculty support for the desired interdisciplinary program. The Office of Interdisciplinary Studies and the administering office of the admitting school or college may aid the prospective student in obtaining faculty advice.

Graduate students interested in formulating an interdisciplinary master program may make formal application to the University Senate Interdisciplinary Studies Committee. Application forms may be obtained through the Office of Interdisciplinary Studies along with a written statement of the guidelines for establishing an interdisciplinary program. Once filled out and approved, the completed application will serve as the official record of the student's interdisciplinary master program.

FORMALLY STRUCTURED INTERDISCIPLINARY MAJORS

Some interdisciplinary master's programs are formally structured and administered by other academic units. These include (consult the specified academic units for further details):

Foreign Language and Communication Media (Departments of Language and Foreign Studies and Communication, College of Arts and Sciences).

International Communication (School of International Service, College of Public Affairs, and Department of Communication, College of Arts and Sciences).

Science Teaching (Interdepartmental Science, College of Arts and Sciences).

Courses of Instruction

Undergraduate Courses

75.100 TECHNIQUES OF LEARNING (c 00.50) Designed to assist students who are experiencing problems in applying themselves to academic expectations and requirements. Bringing together

current research findings from psychology and education, students, with the aid of upper-classmen, engage in small group activities developed to produce behavioral and attitudinal change. Students learn techniques for dealing with concentration, scheduling study time, and wide variety of related academic situations.

75.101, 75.102 SELECTED HUMAN PROBLEMS I AND II: CONTEMPORARY ISSUES IN WORLD AFFAIRS (c 01.00) (c 01.00) Taught by School of International Service faculty.

75.201 PERSPECTIVES ON ENVIRONMENTAL CRISES (c 01.00) Survey of typical environmental problems facing man. Ecological, technological, economic, and cultural implications of environmental problems are considered. Topics include: energy crisis; oil pollution, economic growth, water pollution, population and world food supply. Designed to serve as introductory course for environmental majors. Non-majors may take it as an elective.

75.202 PERSPECTIVES IN ENVIRONMENTAL MANAGEMENT (c 01.00) Comprehensive, multidisciplinary approach to this vital new profession; includes survey of human sciences, natural sciences, and information sciences as each interacts with government and business practices in development of pathways for sound management of our environment. Emphasis on audio-visual aids: movies, slides; class presentations.

75.301 ENVIRONMENTAL STUDIES COLLOQUIUM (c 00.50) Designed to expose student to ideas, concepts, and theories with discussion and interaction with prominent leaders in environmental field. Attendance, outside readings, and reaction papers are required. May be repeated for credit.

75.317 PARA-PROFESSIONAL SERVICES: TRAINING AND APPLICATION (c 01.00) Instruction and service in peer counseling and related research activities and training in basic communication and counseling skills, followed by additional intensive training in one speciality area: Hotline, Companion Program, Pre-Withdrawal and Human Ecology Program, Peer Student Program, and Techniques of Learning Program. Open to students willing to be responsible for work on particular campus service through the semester. Opportunities exist in research and evaluations of campus systems which cause students problems as well as in counseling of students. Part of the P.E.A.C.E. program (Peer-Environmental Analysts, Counselors and Educators). Meets jointly with 75.617.

75.333 MAN THE MYTHMAKER (c 01.00) Interdisciplinary approach to the concept of myth investigating means by which man has always attempted to find meaning in his cosmos. Readings drawn from philosophy, literature, psychology, religion, etc. Seminar course with several critical papers and emphasis on participation in class. (Junior or senior status recommended.)

75.390 INDEPENDENT READING COURSE IN INTERDISCIPLINARY STUDIES (c 00.25 through 02.00)*

75.396 SELECTED TOPICS (NON-RECURRING) (c 00.25 through 02.00)*

75.401 ENVIRONMENTAL STUDIES SENIOR RESEARCH PROJECT (c 01.00) Students conduct an interdisciplinary environmental research project which is under the direction of environmental studies major advisor and primary advisor. Project includes preparation of a final report and presentation in a seminar.

75.490 INDEPENDENT STUDY PROJECT IN INTERDISCIPLINARY STUDIES (c 00.25 through 02.00)*

75.491 INTERNSHIP (c 00.25 through 02.00)

Graduate and Advanced Undergraduate Courses

75.523 COLLOQUIUM ON FRANCE (s 03.00)**

75.533 COLLOQUIUM ON GERMANY (s 03.00)**

75.543 COLLOQUIUM ON THE SOVIET UNION (s 03.00)**

75.553 COLLOQUIUM ON LATIN AMERICA (s 03.00)**

75.590 INDEPENDENT READING COURSE IN INTERDISCIPLINARY STUDIES (s 01.00 through 06.00)*

75.596 SELECTED TOPICS (NON-RECURRING) (s 01.00 through 06.00)*

* See description under "General Curriculum Information" in this publication.

** See description in Department of Language and Foreign Studies course listing.

Graduate Courses

75.617 PARA-PROFESSIONAL SERVICES: TRAINING AND APPLICATION (s 03.00) See course description under 75.317 above. Meets jointly with 75.317.

75.690 INDEPENDENT STUDY PROJECT IN INTERDISCIPLINARY STUDIES (s 01.00 through 06.00)*

75.700 FOLGER SEMINAR IN RENAISSANCE AND EIGHTEENTH-CENTURY STUDIES (s 03.00) These seminars are offered each semester. Graduate students who wish to participate should consult the Department of Literature, College of Arts and Sciences.

University

Learning Center

DIRECTOR Charles B. Ferster

TEACHING STAFF C. B. Ferster (psychology), F. Gabelnick (literature), R. R. Hoart (history), P. Nash (anthropology), B. R. Reiss (physics), P. J. Silverman (psychology)

FIELDS OF STUDY A wide range of study areas is available in the University Learning Center. The faculty members of the center, supported by outside consultants, assist the student in constructing an academic program which can include field work and creative and artistic performance, as well as textbook study. The center emphasizes interdisciplinary study in a variety of academic areas. (A sample schedule for a student interested in the area of womens' studies and corrections would include materials from a social deviance resource center, field work at Chestnut Lodge (a mental hospital in Rockville, Maryland) and the Rape Crisis Center in Washington, D.C., a program of readings in abnormal psychology, and an investigation of the changes in the economic status of the working married woman over the past twenty years.)

CENTRAL CONCEPT The University Learning Center is a self-contained unit with a small number of students, teachers and faculty. It provides a basic area for study, meetings with students and faculty, and informal interactions between students and teachers. The center stresses the acquisition of knowledge as an on-going part of the student's life, the quality of which comes from its orientation as well as from its content. Instruction is individualized, and based on informal interactions between faculty and students. Educational resources include: the faculty members who read and comment on students' journals, lead home-base groups, and assign grades; teachers who provide academic support in specific content areas; resource centers which provide textual materials; and consultants from outside the University Learning Center who have expertise in disciplines other than those of the faculty. A home-base group, composed of up to twelve students, led by a faculty member, is the student's primary social and intellectual unit. Academic accomplishment is evaluated from a journal, a continuous account by the student of his learning. There are few limitations to content areas that can be studied. However, students may take regular courses in the University after consultation with the home-base leader and director.

Bachelor of Arts

MAJOR IN INTERDISCIPLINARY STUDIES

Students graduate with a B.A. in Interdisciplinary Studies. This degree is awarded in the college of the University that is closest to the major focus of the work of the student. For purposes of graduation, the student must complete thirty-two course units including English Composition and Reading I (23.100) and English Composition and Reading II (23.101). The University Learning Center, however, has a procedure whereby the home-base group faculty can certify that a certain section of the student's journal has satisfied the University's English composition requirement. Students interested in preparing for specialized fields of study such as law, medicine, or graduate school should be aware of their responsibility in conforming to the anticipated admission requirements.

Courses of Instruction

Undergraduate Courses

79.192 INDIVIDUAL AND GROUP STUDY (c 00.25 through 04.00) Freshman level individual and group study developed on University Learning Center basis to meet student's interests and needs.

* See description under "General Curriculum Information" in this publication.

79.292 INDIVIDUAL AND GROUP STUDY (c 00.25 through 04.00) Sophomore level individual and group study developed on University Learning Center basis to meet student's interests and needs.

79.392 INDIVIDUAL AND GROUP STUDY (c 00.25 through 04.00) Junior level individual and group study developed on University Learning Center basis to meet student's interests and needs.

79.492 INDIVIDUAL AND GROUP STUDY (c 00.25 through 04.00) Senior level individual and group study developed on University Learning Center basis to meet student's interests and needs.

Graduate and Advanced Undergraduate Courses

79.592 INDIVIDUAL AND GROUP STUDY (s 01.00 through 12.00) Graduate level individual and group study developed on University Learning Center basis to meet student's interests and needs.

Other Programs

INSTITUTES An institute is a specialized and intensive academic offering of the University designed primarily for persons engaged in professional fields. Institute programs are developed in consultation with specialists in business organizations, government agencies, and national associations located in Washington and consist of formal lectures and seminar discussions, field and laboratory work, reading assignments, and research projects.

Individual institutes are listed under their appropriate academic units in this publication.

THE BUSINESS COUNCIL FOR INTERNATIONAL UNDERSTANDING (BCIU) INSTITUTE In 1959 The Business Council for International Understanding selected The American University as its training institute to prepare U.S. and foreign business executives and their families to effectively work and live in other cultures. The BCIU Institute provides workshops monthly for personnel from international organizations, and has more than 2,000 graduates living in eighty-seven countries, including Eastern Bloc countries. Programs consist of high-intensity language instruction in sixteen languages, intercultural communications workshops for more than 100 countries, area studies for twenty-one major regions, and relocation services for thirty-four major cities throughout the world. In-house programs are conducted for management and organization development, government-business relations, intercultural communications training, and area/country orientation. The faculty is composed of resource personnel from The American University and other area universities U.S. Government, international organizations, and international business.

For additional information, write to the Director, The BCIU Institute, The American University, Washington, D.C., 20016.

THE GRAZ CENTER The Association of Colleges and Universities for International-Intercultural Studies, Inc., (ACUIIS), is an organization of colleges and universities concerned with the development of international education through academic excellence and ethical motivation.

The programs of the association are designed to introduce students to foreign cultures in their original environments. A well-balanced encounter with academic subjects and social opportunities encourages participants to seek creative interpretation of contemporary problems. These experiences are designed to prepare the student for understanding the concept of world citizenship.

One of the principal projects of ACUIIS is the Graz Center. Graz Center classes are taught in English at Graz University, a European university with a long and distinguished heritage. The 900-year-old city of Graz was selected because its superb setting stimulates creative thinking and deeper understanding of the past, and because Graz is a natural bridge between East and West. Graz is especially well situated to promote communication with such countries as Yugoslavia, Hungary, Czechoslovakia, and the Soviet Union. As a neutral country, Austria provides a base for exchange of ideas among the communities which surround her borders.

For further information on study opportunities at Graz, contact the School of International Service, The American University, Washington, D.C., 20016.

CENTER FOR RESEARCH AND DOCUMENTATION ON THE EUROPEAN COMMUNITY Established in 1971 and housed in the Department of Language and Foreign Studies, CERDEC has been granted status of "Center for European Documentation" by the authorities of the European Community in Brussels.

The Center provides academic guidance for courses and research in the field of European integration. It encourages teaching on the Common Market through available undergraduate and graduate programs, some being administered jointly by the Department of Language and Foreign

Studies and the Department of Communication or the School of International Service. Another function of CERDEC is to see that the various publications from the institutions of the European Community are made available on a daily basis to interested students on the campus as well as those from other schools of the Consortium of Universities of the Washington Metropolitan Area. For additional information write to the Office of the Director, CERDEC, The American University, Washington, D.C., 20016.

CENTER FOR THE STUDY OF PRIVATE ENTERPRISE The Center, with the cooperation of the Secretary of Commerce, sponsors three lectures in business-government relations each year in addition to the Annual Washington Conference on Business-Government Relations.

WASHINGTON SEMESTER PROGRAMS Established in 1947 and operated by the School of Government and Public Administration of the College of Public Affairs, the Washington Semester Programs provide intercollegiate honors programs for field study of various aspects of the American governmental and political system. More than 260 students from over 140 colleges across the country attend each year for a full semester to pursue their choices among six programs of study in which meetings in the field with public officials, lobbyists, political figures, and others active in the governmental and political process serve as central elements in the teaching methodology. Guided individual and team field research and internships are also provided in connection with these offerings.

The six programs of study are:

The Washington Semester The Washington Semester is the original program offering and covers the American national governmental and political system as a whole. It is taught by members of the faculty of the School of Government and Public Administration of the College of Public Affairs.

The Washington Urban Semester Patterned on the Washington Semester, the Washington Urban Semester is part of the program in urban affairs of the School of Government and Public Administration and serves both the student body at The American University and the member colleges of the Washington Semester programs. Emphasis is placed not on urban politics alone, but also on policies of regional agencies, states, and the national government in urban matters, and the politics of intergovernmental decision-making in this field.

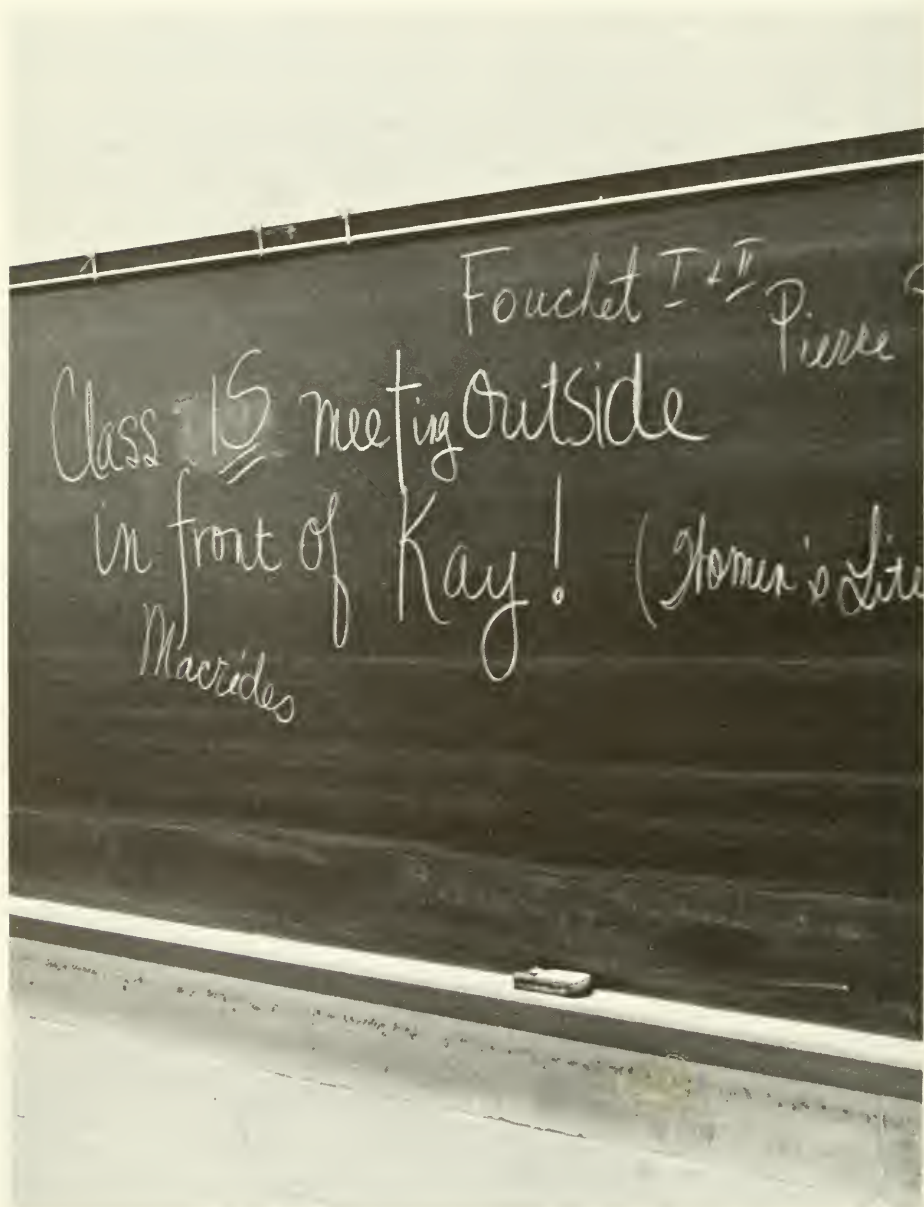
The Foreign Policy Semester Originating as the Washington International Semester in Fall 1970, the Foreign Policy Semester is offered by the faculty of the School of International Service of the College of Public Affairs and, like the Urban Semester, is open to students both from The American University and from member colleges. The Foreign Policy Semester provides its students with an opportunity to observe and study the manifold governmental, international, and private activities which contribute to the United States' posture in world affairs.

The International Development Semester Taught by the faculty of the School of International Service, the International Development Semester focuses on problems and policies of less-developed nations and their relations with the more advanced industrial countries. It is open to students from The American University and from member schools in the Washington Semester Programs.

The Washington Economic Policy Semester The Washington Economic Policy Semester is offered by the faculty of the Department of Economics of the College of Arts and Sciences. It is an intensive examination of the macro and micro dimensions of the policy-making process in the nation's capital. The program is designed for students with an interest in the practical as well as the theoretical. The subject focus is on stabilization policy in all of its aspects—theoretical, practical, and political; environmental economics and the economics of the energy shortage; international economy and recent developments in the international monetary field and the impact of the multi-national corporation. Additional topic areas include tax policy, poverty and the attempts to reduce poverty, anti-trust actions and the role of big business, and urban economic policy. It is open to students from The American University and member colleges in the Washington Semester Programs.

The Washington Science and Technology Semester The Washington Science and Technology Semester is offered by an interdisciplinary faculty of the College of Arts and Sciences and the College of Public Affairs. It focuses on insights into the present state of science and technology in specific national problem areas such as the energy shortage, environmental pollution, nutrition, health, crime detection and deterrence, and national defense. Other study areas include federal policy toward science, funding sources in the federal government, issuance of patents and licenses, the sources

of scientific and technical information, and the roles of scientists, scientific societies, pressure groups, and the press in policy-making. The program is designed for upper undergraduate students majoring in the natural sciences, mathematics, and computer science. It is open to students from The American University and member colleges in the Washington Semester Programs.



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ABBREVIATIONS

Acad.—Academy	Emer.—Emeritus
Admin.—Administration	Inst.—Institute
Asst. Prof.—Assistant Professor	Instr.—Instructor
Assoc. Prof.—Associate Professor	Prof.—Professor
Certif.—Certificate	Sch.—School
Dipl.—Diploma	Univ.—University
Dir.—Director	Visit.—Visiting

Disciplines

Admin. of Justice—Administration of Justice
Amer. Studies—American Studies
Anthro.—Anthropology
Biol.—Biology
Bus. Admin.—Business Administration
Chem.—Chemistry
Comm.—Communication
Cont. Educ.—Continuing Education
Econ.—Economics
Educ.—Education
Engl.—English
Govt. and Pub. Admin.—Government and Public Administration
Hist.—History
Internat. Service—International Service
J. Studies—Jewish Studies
Lang. and For. Studies—Language and Foreign Studies
Lit.—Literature
Math. and Stat.—Mathematics and Statistics
Mus.—Music
Perf. Arts—Performing Arts
Phil. and Rel.—Philosophy and Religion
Physical Educ.—Physical Education
Phys.—Physics
Psych.—Psychology
Sociol.—Sociology
Tech. and Admin.—Technology and Administration
*Asterisk indicates Department Chairman or Director.

States

Ala.—Alabama	La.—Louisiana	O.—Ohio
Alas.—Alaska	Me.—Maine	Okla.—Oklahoma
Ariz.—Arizona	Mass.—Massachusetts	Ore.—Oregon
Ark.—Arkansas	Md.—Maryland	Pa.—Pennsylvania
Calif.—California	Mich.—Michigan	R. I.—Rhode Island
Colo.—Colorado	Minn.—Minnesota	S. C.—South Carolina
Conn.—Connecticut	Miss.—Mississippi	S. Dak.—South Dakota
Del.—Delaware	Mo.—Missouri	Tenn.—Tennessee
Fla.—Florida	Mont.—Montana	Tex.—Texas
Ga.—Georgia	Nebr.—Nebraska	Ut.—Utah
Hawaii—(not abbrev.)	Nev.—Nevada	Va.—Virginia
Ida.—Idaho	N. C.—North Carolina	Vt.—Vermont
Ill.—Illinois	N. Dak.—North Dakota	Wash.—Washington
Ind.—Indiana	N. H.—New Hampshire	W. Va.—West Virginia
Iowa	N. J.—New Jersey	Wisc.—Wisconsin
Kans.—Kansas	N. Mex.—New Mexico	Wyo.—Wyoming
Ky.—Kentucky	N. Y.—New York	D.C.—(District of Columbia)

1974-1975 Full-time Faculty

THE FACULTY LIST BELOW COVERS THE 1974-1975 ACADEMIC YEAR ONLY.

A

AARONSON, DAVID E. (1970). B.A., M.A., George Wash. Univ.; LL. B., Harvard Univ.; LL. M., Georgetown Univ.; Assoc. Prof. of Law.

ABELE, RUDOLPH VON (1947). A.B., Ph.D., Columbia Univ.; Prof. of Lit.

AKINS, J. CARL (1970). B.A., Univ. of Tex.; M.A., Ph.D., Harvard Univ.; Assoc. Prof. of Govt. and Pub. Admin.

ALDRIDGE, MARY H. (1955). B.S., Univ. of Ga.; M.A., Duke Univ.; Ph.D., Georgetown Univ.; Prof. of Chem.

ALLEN, GEORGE N. (1975). B.S., M.S., Columbia Univ.; Asst. Prof. of Comm.

ALLEN, GEORGE R. (1971). B.S., M.B.A., Univ. of Pittsburgh; D.B.A., Ariz. State Univ.; Assoc. Prof. of Bus. Admin.

ALLEN, VALERIE F. (1972). B.A., Cornell Univ.; M.A., Ph.D., U.C.L.A.; Asst. Prof. of Hist.

ANDERSON, LAIRD B. (1973). B.S., Fla. State Univ.; M.A., The Amer. Univ.; Asst. Prof. of Comm.

ANDERSON, RICHARD R. (1966). B.S., Lewis and Clark Coll.; M.S., Ph.D., Univ. of Md.; Assoc. Prof. of Biol.

ANDREWS, CLIFFORD B. (1974). B.F.A., Miami Univ.; M.A., Ph.D., Wash. Univ.; Asst. Prof. of Perf. Arts.

ANTHON, CARL G. (1961). B.A., Univ. of Chic.; M.A., Ph.D., Harvard Univ.; Prof. of Hist.

ARNOLD, STEVEN M. (1970). B.A., Occidental Coll.; M.A., Ph.D., Johns Hopkins Univ.; Asst. Prof. of Internat. Service.

B

BAKER, ANN E. (1963). A.B., A.M., Boston Univ.; Ph.D., Univ. of N. H.; Assoc. Prof. of Chem.

BAKER, KENNETH (1966). B.A., M.A., Univ. of Kans.; Assoc. Prof. of Perf. Arts.

BAKER, SARAH M. (1945). Pa. Acad. of Fine Arts; Academie Montparnasse; Phillips Mem. Gallery.; Prof. Emer. of Art.

BANTA, WILLIAM C. (1970). B.A., Univ. of Calif.; Ph.D. Univ. of Sou. Calif.; Assoc. Prof. of Biol.

BARANOVIC, BORIS I. (1966). B.A., Amherst Coll.; M.F.A., Yale Univ.; Asst. Prof. of Perf. Arts.

BARRETT, NANCY SMITH (1966). A.B., Goucher Coll.; M.A., Ph.D., Harvard Univ.; Prof. of Econ.

BARRON, AUSTIN M. (1971). B.S., Coll. of the City of New York; M.S., Ph.D., Purdue Univ.; Asst. Prof. of Math. and Stat.

BARROS, FRANK J. (1974). B.A., St. Mary's Academy; M.A., Ph.D., Cath. Univ.; Assoc. Prof. of Educ. and Dir. of Acad. Dev. and Res.

BARTFELD, CHARLES I. (1966). M.B.A., Ph.D., Columbia Univ.; Prof. of Bus. Admin.

BASSLER, RICHARD A. (1969). B.S., Univ. of Colo.; M.S., George Wash. Univ.; Assoc. Prof. of Tech. and Admin.

BATCHELDER, MERRITT C. (1935). B.A., Hillsdale Coll.; M.A., Columbia Univ.; Ph.D., Io. State Univ.; Prof. Emer. of Lit.

BEAN, ARTHUR P., JR. (1963). B.A., M.A., Univ. of Va.; M.S., Cath. Univ.; Asst. Prof. of Lit.

BECHHOEFER, INA S. (1973). B.S., Simmons Coll.; M.S., The Amer. Univ.; Instr. of Bus. Admin.

BEISNER, ROBERT L. (1965). M.A., Ph.D., Univ. of Chic.; Prof. of Hist.

BERENDZEN, RICHARD (1974). B.S., M.I.T.; M.A., Ph.D., Harvard Univ.; Assoc. Prof. of Phys. and Dean of the Coll. of Arts and Sci.

BERMAN, ALAN L. (1969). B.A., Johns Hopkins Univ.; Ph.D., Cath. Univ.; Assoc. Prof. of Psych.

BETTS, MADELINE J. (1969). B.A., M.A., Universite D'Ottawa; Ph.D., Univ. of Ill.; Assoc. Prof. of Lang. and For. Studies.

BLANCHARD, LYDIA (1974). B.S., M.S., Northwestern Univ.; M.A., Ph.D., The Amer. Univ.; Asst. Prof. of Lit.

BLANCHARD, ROBERT O. (1965). B.S.J., M.S.J., Northwestern Univ.; Ph.D., Syracuse Univ.; Prof. of Comm.*

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SMITH, JOHN H. (1947), B.A., Io. State Teachers Coll.; M.B.A., Ph.D., Univ. of Chic.; Prof. Emer. of Math. and Stat.

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T

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TENNER, B. J. (1956), B.A., M.A., George Wash. Univ.; J.D., The Amer. Univ.; Prof. of Law.

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THURBER, JAMES A. (1974), B.S., Univ. of Oreg.; M.A., Ph.D., Ind. Univ.; Asst. Prof. of Govt. and Pub. Admin.

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TOOMER, JERRY E. (1974), B.A., Wartburg Coll.; Ph.D., Univ. of Io.; Asst. Prof. of Educ.

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TURAK, THEODORE (1966), B.A., M.A., Western Reserve Univ.; Ph.D., Univ. of Mich.; Assoc. Prof. of Art.

TYSON, BRADY B. (1959), B.A., Rice Univ.; B.D., Sou. Methodist Univ.; Ph.D., The Amer. Univ.; Assoc. Prof. of Internat. Service.

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- VAUGHN, ROBERT G.** (1972), B.A., J.D., Univ. of Okla.; LL.M., Harvard Univ.; Assoc. Prof. of Law.
- VIANO, EMILIO C.** (1970), B.A., Gregoriana Univ.; M.A., Univ. of Notre Dame; Ph.D., N.Y. Univ.; Assoc. Prof. of Admin. of Justice.
- VILAKAZI, ABSOLOM L.** (1965), B.A., Univ. of Natal; M.A., Hartford Sem. Foundation; M.A., Trinity Coll.; Ph.D., Univ. of Natal; Prof. of Internat. Service and Anthro.
- VOSS, HERBERT R.** (1967), B.S., Wisc. State Univ.; M.A., Univ. of Minn.; Assoc. Prof. of Perf. Arts.
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- WHITE, CHARLES S. J.** (1971), B.A., Univ. of Wisc.; M.A., Univ. of the Americas; M.A., Ph.D., Univ. of Chic.; Assoc. Prof. of Phil. and Rel.
- WHITE, JOHN A.** (1966), B.A., Oberlin Coll.; M.S., Ph.D., Yale Univ.; Prof. of Phys.
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- WHITFIELD, RALPH** (1961), B.A., Atlantic Christian Coll.; M.A., Univ. of N.C.; Ed. D., Univ. of Md.; Prof. of Educ.
- WHITLEY, STERLING D.** (1966), B.S., Tenn. Tech. Univ.; B.D., Vanderbilt Univ.; M.Ed., Ed.D., Auburn Univ.; Prof. of Educ.
- WILBER, CHARLES K.** (1964), B.A., M.A., Univ. of Portland; Ph.D., Univ. of Md.; Prof. of Econ.
- WILSON, HOWARD** (1963), B.E.E., George Wash. Univ.; M.A., Univ. of Md.; Asst. Prof. of Math. and Stat.
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- WOLFSON, LEWIS W.** (1969), B.A., Dartmouth Coll.; M.S., Columbia Univ.; M.A., Harvard Univ.; Prof. of Comm.
- WOOD, GLYNN L.** (1969), B.A., La. State Univ.; A.M., Stanford Univ.; Ph.D., M.I.T.; Assoc. Prof. of Govt. and Pub. Admin. and Internat. Service.
- WRATHALL, C. RICHARD** (1974), B.S., M.S., Ph.D., Univ. of Ut.; Asst. Prof. of Biol.
- WYATT, KATHRYN** (1945), A.B., Meredith Coll.; M.A., Middlebury Coll.; Ph.D., Cath. Univ.; Prof. Emer. of Lang. and For. Studies.
- WYTHE, ZOE** (1948), B.A., M.A., George Wash. Univ.; Assoc. Prof. Emer. of Lang. and For. Studies.

Y

- YAMAUCHI, JOANNE S.** (1970), B.A., Goucher Coll.; M.A., Columbia Univ.; Ph.D., Northwestern Univ.; Asst. Prof. of Comm.
- YARNALL, SHIRLEY** (1959), B.A., Wilson Coll.; Assoc. Prof. of Lit.
- YOSHIMASHI, TAKEHIKO** (1959), B.A., Univ. of Calif.; M.A., Harvard Univ.; Ph.D., Yale Univ.; Prof. of Internat. Service.
- YOUNG, LOUISE M.** (1958), B.A., O. Wesleyan Univ.; M.A., Ph.D., Pa. State Univ.; Prof. Emer. of Lit.

Z

- ZAPATKA, FRANCIS E.** (1959), A.B., Fordham Univ.; M.A., Trinity Coll.; Ph.D., Cath. Univ.; Asst. Prof. of Lit.
- ZAUDERER, DONALD G.** (1970), B.S., O. State Univ.; M.A., Kent State Univ.; Ph.D., Ind. Univ.; Assoc. Prof. of Govt. and Pub. Admin.

1974-1975 Part-time Faculty

THE FACULTY LIST BELOW COVERS THE 1974-1975 ACADEMIC YEAR ONLY.

ABBREVIATIONS

Lect.—Lecturer
Prof. Lect.—Professorial Lecturer
Adj. Prof.—Adjunct Professor

For a complete listing of abbreviations see the beginning of the full-time faculty section.

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ADAMS, ELIZABETH S. (1970), B.A., Syracuse Univ.; M.S., Yeshiva Univ.; Lect. in Cont. Educ.
ADAMS, JUDITH ANNE (1970), B.S.L., Georgetown Univ.; Lect. in Cont. Educ.
AHMED, ALTAF (1972), M.A., Punjab Univ.; M.A., George Wash. Univ.; Lect. in Math. and Stat.
ALPHER, ROSE (1972), B.A., Hunter Coll.; M.S.W., Jewish Sch. of Social Work; Lect. in Educ.
ALTER, HARVEY (1974), B.S., Queens Coll.; M.S., Ph.D., Univ. of Cincinnati; Lect. in Tech. and Admin.
ARCANTI, STEVEN J. (1974), B.A., Univ. of Mass.; M.A., The Amer. Univ.; Lect. in Hist.
ARCHIBALD, SAMUEL (1968), B.A., Univ. of Colo.; Adj. Prof. in Comm.
ARISERS, WILLIAM E. (1973), Lect. in Mus.
AUBERGER, KENNETH J. (1973), B.B.A., Siena Coll.; J.D., M.B.A., The Amer. Univ.; Lect. in Bus. Admin.
AYOROA, RODOLFO (1974), Prof. Lect. in Art.

B

BANCALL, SUSAN (1973), B.A., M.A., Univ. of Wisc.; Lect. in Lit.
BAILEY, JAMES M. (1974), B.A., Marquette Univ.; L.L.B., Cath. Univ.; Prof. Lect. in Admin. of Justice.
BAKER, DAVID A. (1972), A.B., St. Martins Coll.; B.S., M.S.W., Univ. of British Columbia; Prof. Lect. in Admin. of Justice.
BAKER, DONALD P. (1972), A.B., W. Va. Inst. of Tech.; Prof. Lect. in Comm.
BAKER, SUSANNE (1972), B.S., Bucknell Univ.; M.A., Univ. of Wisc.; M.A., The Amer. Univ.; Lect. in Mus.
BALDERSTON, CANBY (1966), B.S., M.A., Ph.D., Univ. of Pa.; Adj. Prof. of Bus. Admin.
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BARRETT, MARY ELLEN (1969), B.A., Mary Marise Coll.; M.A.T., George Wash. Univ.; Prof. Lect. in Cont. Educ.
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BATEMAN, DAVID V. (1970), B.A., Univ. of Buffalo; M.A., Univ. of Nebr.; Lect. in Math. and Stat.
BECK, THOMAS E. (1973), B.A., M.F.A., Univ. of Md.; Prof. Lect. in Art.
BENNETT, TREW (1974), Corcoran Sch. of Art; Prof. Lect. in Art.
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BENNINGTON, GERALD (1960), B.S.E., Univ. of Mich.; M.S., Ph.D., Johns Hopkins Univ.; Prof. Lect. in Tech. and Admin.
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BIERMAN, MARTIN I. (1972), A.B., Univ. of Mich.; J.D., Wayne State Univ.; Adj. Prof. of Admin. of Justice.
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BOGGS, CAROL (1974), B.S., O. State Univ.; Manhattan Sch. of Mus.; Lect. in Perf. Arts.
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BOOTHMAN, DONALD (1970), B.A., Oberlin Coll.; Prof. Lect. in Mus.
BORNSTEIN, ANDREW (1972), Prof. Lect. in Comm.
BOSAK, VINCENT J. (1972), B.S., Univ. of Scranton; M.A., The Amer. Univ.; Lect. in Tech. and Admin.
BOUL, JACK (1969), Certif., Cornish Sch. of Art; Prof. Lect. in Art.
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BRADFORD, LINDA M. (1972), A.B., Univ. of Calif.; M.S., Georgetown Univ.; Lect. in Cont. Educ.
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CATRAVAS, GEORGE N. (1967), D.Ch., Univ. of Athens; Ph.D., Univ. of Leeds; D.Sc., Univ. of Paris; Adj. Prof. of Biol.
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- COHEN, JONATHAN S.** (1966). B.A., Yale Univ.; LL.B., Univ. of Pa.; LL.M., N.Y. Univ.; Adj. Prof. of Law.
- COHN, SHERMAN L.** (1971). B.S., F.S., J.D., LL.M., Georgetown Univ.; Adj. Prof. of Law.
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- COOLEY, WILLIAM J.** (1974). B.A., Marquette Univ.; J.D., DePaul Univ.; Prof. Lect. in Admin. of Justice.
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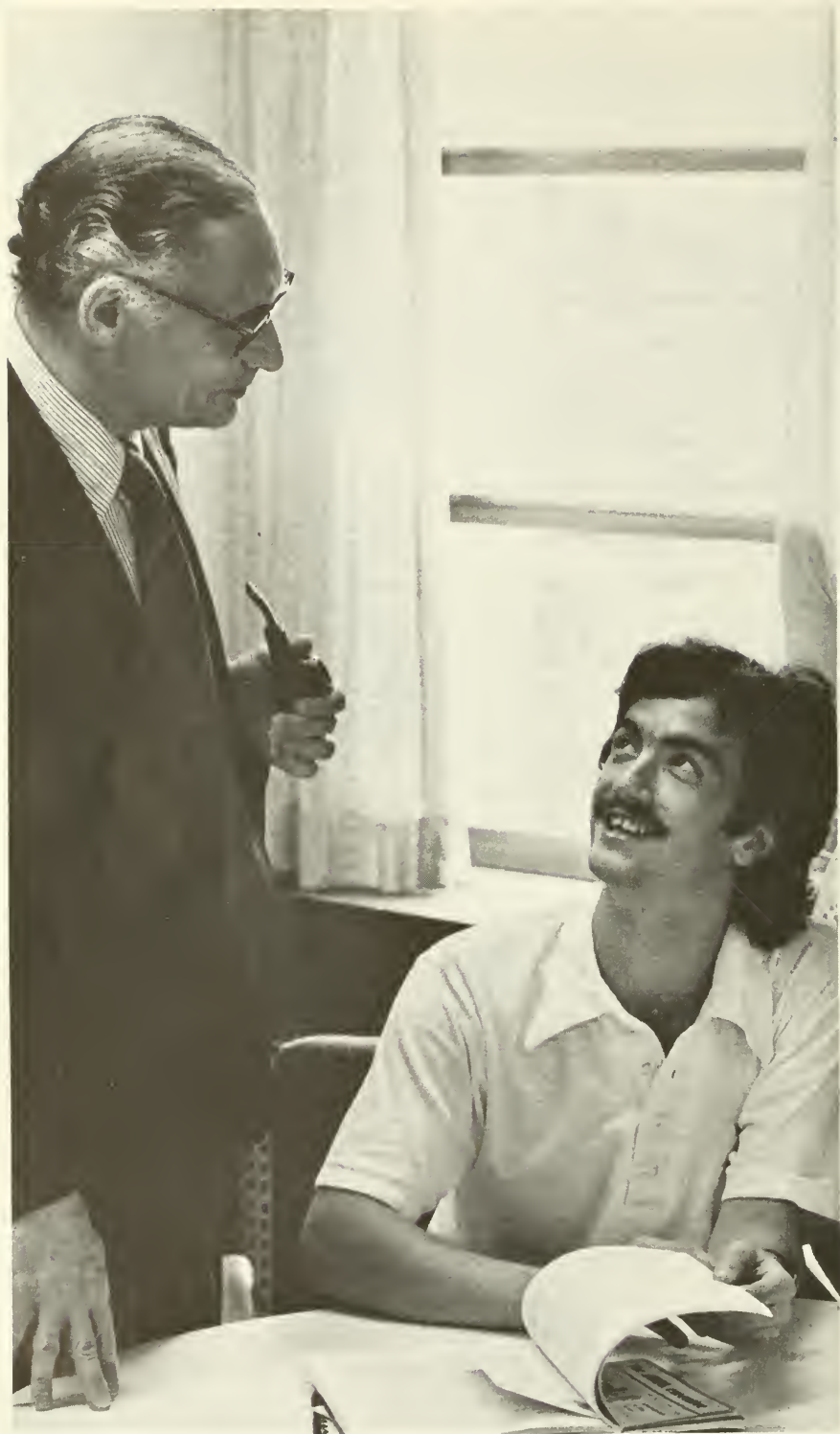
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